MEASURING THE IMPACT OF TECHNOLOGY ON LEADERSHIP EDUCATION

A Thesis

by

ROBERT T. JONES

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree
of

MASTER OF SCIENCE

May 2003

Major Subject: Agricultural Education

MEASURING THE IMPACT OF TECHNOLOGY ON LEADERSHIP EDUCATION

A Thesis

by

ROBERT T. JONES

Submitted to Texas A&M University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Approved as to style and
content by:

_____	_____
Christine D. Townsend (Chair of Committee)	Glen C. Shinn (Head of Department)

_____
Gary E. Briers
(Member)

_____
Lloyd J. Korhonen
(Member)

May 2003

Major Subject: Agricultural Education

ABSTRACT

Measuring the Impact of Technology on Leadership Education. (May 2003)

Robert T. Jones, B.S., Texas A&M University

Chair of Advisory Committee: Dr. Christine D. Townsend

The purposes of this study were to determine the effectiveness of a computer-assisted lab environment in a course on leadership and to determine if undergraduate students believe that leadership concepts can be successfully taught in an asynchronous environment, in this case, using the technology of the world wide web. Students' attitudes toward computer-based leadership education were measured by a leadership perception index, a technology perception index, a class-inclusion acceptance index, and a discussion technology acceptance index administered through a post-activity survey that measured their responses in both a quantitative and qualitative format.

Students participated in a leadership lab activity in one of three treatments: 1) no computer-facilitated interaction and traditional classroom interaction, 2) completely asynchronous, computer-facilitated interaction, or 3) hybrid interaction consisting of half computer-

facilitated, and half traditional classroom interaction. A post-activity survey was used to collect data about the students' perceptions of their experiences.

Post-activity survey scores indicated that a majority of students accept learning about leadership through asynchronous technological means such as the world wide web. Students who were not exposed to any technological experience in this activity quantitatively answered that the interpolation of technology into leadership education would not be successful. The hybrid group quantitatively felt the use of technology was most acceptable of the three treatment groups, with slightly fewer "positive" results from the completely asynchronous, solely computer-facilitated group.

Students had a positive attitude toward computers and qualitatively identified the need to use computers more prevalently in undergraduate teaching. Students' qualitative results also indicated that students felt that computers were important to their future, and most seemed to enjoy the opportunity to complete a lab using them.

Since the computer facilitated assignment was completed using the Internet as a connection medium, additional data were collected from students. Interestingly, of students involved in the asynchronous

section, only 18% completed their assignments during morning hours (from 6:00 a.m. to noon), while 39% completed their assignments between 8:30 p.m. and 1:00 a.m.

ACKNOWLEDGMENTS

I would like to thank Dr. Christine Townsend for her great insight and motivation. Dr. Townsend has been a wonderful mentor and ally helping me achieve both my undergraduate and master's degrees at Texas A&M. Her courses on leadership at Texas A&M University have proven inspiring to many students on the campus, myself among them.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Computers have become ubiquitous in our modern day lives (Stajano, 2002). Computers continue to modernize commerce, banking, litigation, delegation, and even the world of education has been interspersed with computer technology almost everywhere. Moore's Law states that the number of transistors on a computer's main brain, or processor, will double once every eighteen months (Meieren, 1998). With this paradigm remaining intact in excess of thirty years now, the raw power of computers today is vastly more than was used to send a man to the moon during the Apollo missions of the late 1960s and early 1970s (Hall, 1996). An individual computer that sits on a desk from the educational world to the business world is in almost all cases drastically more powerful than the entire sum of computing power available during the Apollo era.

The implications of such a powerful tool being both ubiquitous and increasingly affordable have lead to startling revelations in the world of education. With a personal computer, students suddenly have the information of the world at their fingertips. Encyclopedias have gone

---

This thesis follows the style and format of the *Journal of Agricultural Education.*

from being static pages in a book to dynamic content on one small compact disk with sounds and color pictures and even the ability to update content on demand (Fain, 1992). The continued growth of the public Internet has also interlinked the globe in a vast information conduit. As the world begins to explore this new "information era," the landscape of education is being reshaped in dramatic ways (Shank & Edelson, 1990).

The event horizon of asynchronous learning has been crossed, where the marvels of the computing innovation have begun to replace teachers in the classroom. This computer-assisted instruction (CAI) offers students the opportunity to work asynchronously from their peers at any hour, pace, or level that they choose. Computers, in addition to offering a completely asynchronous experience, can be used in combination with traditional teaching methods to offer an augmentation of the teacher's message to the student. CAI can cater to all types of students and all types of learning styles (Corbett, 1992). The intrinsic flexibility of a smaller ratio of computers to students has afforded the computer the perception of becoming an increasingly valuable tool in the educational environment.

It has been proven that computers have the ability to teach students factual information at lower levels of

Bloom's Taxonomy and students are as equally likely to retain the information as if they had participated in a traditional classroom experience (Corbett, 1992). In teaching higher level concepts that have been traditionally associated with social concepts, is it possible that an indirect social interface such as a computer can provide students the opportunity to learn these concepts as well as in a traditional classroom?

This project on investigating use of technology and CAI in leadership education continues the leadership studies in the Department of Agricultural Education at Texas A&M University. During the fall term of 1999, CAI was used as a one-class lesson in the laboratory section of the class "Agricultural Education 340: Professional Leadership Development." Based on the course section the students had enrolled in, they were subjected to one of three ways this particular lesson was to be taught. The treatments for the different sections were assigned at random. The control section received traditional classroom instruction for the activity. Two sections, acting as one variable unit, received a half-and-half mixture of traditional classroom interaction and online interaction. The remaining two sections, acting as a second variable unit, received completely asynchronous instruction with no

traditional classroom discussion. All students were required to complete a post-activity survey concerning their thoughts about the experience. What did the students think of the activity? Can leadership education be taught successfully through utilization of modern technology such as the personal computer? Did students' perception of their existing status as a leader make them more or less comfortable with technology? Did the amount of technology that students were exposed to affect their answers on ability to use technology to teach leadership? This study created an initial framework to answer questions of this type related to providing education through computer-mediated learning.

Statement of the Problem

Computers now exist in most levels of the educational environment and their increasing power and decreasing cost set the precedent for that trend to continue (Wilkinson & Allen, 1998). As enrollment continues to grow in post-secondary education, teachers will face increasing needs to effectively use resources at their disposal, such as computers, to increase the reach of their educational message. If, however, more technology is employed, can it

be unilaterally stated that, “across the board” students learn all concepts from computers as equally well as they would in the classroom? Because of these concerns, it is necessary to measure teaching more advanced concepts from Bloom’s Taxonomy to students to see if they feel that their educational experiences were positive ones. With the results of that student opinion as a framework, the larger questions of technology utilization as “appropriate” can begin to be answered.

As mentioned previously, the Department of Agricultural Education at Texas A&M University deployed a multi-level technological presentation of instructional material to laboratory sections where students used varying levels of technological instruction to participate in a leadership lesson. This leadership lesson, entitled “Maytown,” was easily transformed from a stapled stack of papers for each student into an online activity that students could participate in. The essential question is “Can computers facilitating the content dissemination and discussion of a leadership lesson successfully teach students?” This master’s thesis is an initial attempt to answer that question.

Purpose and Objectives

The purpose of this study was to determine the effectiveness of varying levels of CAI in a leadership education course. In order to determine effectiveness, the following objectives were identified:

1. Determine the appropriateness of utilization of technology as a leadership education teaching medium,
2. Evaluate student perception and acceptance of technology as a discussion tool and teaching mechanism, and
3. Determine the correlation between student self-leadership perception and extent technology acceptance.

Significance of the Study

This research seeks to answer the question of whether computers can be effective in communicating higher level concepts that have traditionally been assumed to require a social context to understand. Additionally, the research seeks to find out students' perceptions about their own leadership experience and how that might relate to their perception of technology. During this leadership course, Agricultural Education (AGED) 340, students are afforded

tremendous opportunity to interact with their peers, in order to discuss, face-to-face, concepts of, and relating to, leadership. In attempting to have asynchronous study, students will be deprived of this face-to-face contact and discussion of concepts. Because of this deprivation of a "social context" that CAI imposes, it is important to determine whether leadership education is an appropriate context in which to use CAI.

Students remember and apply information that is presented to them in what they consider to be a meaningful way based on having a foundation of understanding in order to learn (Ausubel, 1968). Therefore, measuring student perception of their experiences using technology following this activity was an invaluable step toward understanding the quantity and quality of their knowledge acquisition based on their initial framework of understanding how to use computers. Based on students' perception of their experience, CAI can be successfully used to teach more abstract concepts such as leadership education.

Definition of Terms

Some of the terms in this study require definition. For this study, the following terms have been defined:

340TA index - The index compiled from post-activity survey results that indicates students' perception of utilization of technology to teach AGED 340.

Agricultural Education 340 (AGED 340) - The professional leadership development class used in this research.

Computer-Assisted Instruction (CAI) - The use of both computer hardware and software to augment and/or supplant traditional classroom instruction to teach students.

DTA index - The index compiled from post-activity survey results that indicates students' perception of utilization of technology as a means to facilitate discussion.

LP index - The index compiled from post-activity survey results that indicates a students' self-perception of their leadership abilities.

Maytown - The leadership activity that was deployed to the students during a laboratory session of AGED 340 in different technological ways for students to complete and then use the experience to evaluate technology effectiveness in leadership education.

Null hypothesis - The null hypothesis is a term that statisticians often use to indicate the statistical hypothesis tested.

TP index - The index compiled from post-activity survey results that indicates students' attitudes toward acceptance of technology.

Assumptions

This research assumed that across different sections of the AGED 340 laboratory the different teaching assistants in the laboratory sections appropriately deployed their chosen technological lesson. In addition, the assumption was made that for the two treatment groups, although each of the two sections per variable was taught by different staff, that the staff taught consistently.

It is assumed that the respondents that submitted the post-activity survey answered them truthfully and correctly.

The researcher assumed that reliable and valid findings can be obtained from the data gathered from students.

It is assumed that students at Texas A&M University are computer literate, now having the requirement to either take a computer literacy course while in high school, or having to take one at Texas A&M University.

Organization of the Remainder of the Thesis

Chapter II presents a review of literature which explores technology growth and utilization in modern-day education, technology, more specifically, in the world of leadership education, and Ausubel's "meaningful learning" concept and its application to technology interpolation in the classroom.

Chapter III explains the methodology and procedure of this experimental study. In Chapter IV, the results and analysis are presented. Finally, Chapter V provides a conclusion, summary, and recommendation for further study.

CHAPTER II

REVIEW OF LITERATURE

Leadership Education at Texas A&M University

The technology facet of leadership education study through the Department of Agricultural Education at Texas A&M University is a new incorporation into the efforts of the existing Leadership Education team. As such, the scope of this research seeks to expand and update the foundations established by Corbett in 1992 where it was established that technology-based computer-assisted instruction (CAI) was equally as effective as traditional classroom instructional methods in teaching plant identification to horticulture students.

The Department of Agricultural Education at Texas A&M University supports leadership education as one of the primary goals of the department's educational mission. Three faculty positions are dedicated to coordinating an undergraduate leadership major (Agricultural Development) to prepare students in agricultural leadership and communications. An active graduate program allows students advanced scholarly endeavors concerning the theory and philosophy of leadership education. Courses such as

Professional Leadership Development, Youth Leadership Programs, Leadership for Teams, and internship experience opportunities are the cornerstones of leadership education provided by the department. The success of leadership education may be demonstrated by the rise in enrollment of the Professional Leadership Development (AGED 340) course. During 2002, more than 800 undergraduate students enrolled in the course. The current level of enrollment is capped only by limited facilities and available faculty (Townsend, 2002).

The premise of leadership research in the Department of Agricultural Education at Texas A&M University focuses on the effectiveness of leadership education. Specifically, can leadership competencies be taught and what methods enhance the learning of these competencies? A strength of this research emphasis is that it provides a strand of leadership scholarly inquiry which parallels the efforts of other leadership scholars who define leadership competencies through their research and investigation. (Townsend, 2002)

The Texas A&M University and Texas Tech University joint "Doc at a Distance" program (Shinn, 2001) shows increasingly blurry boundaries between distance education and the traditional classroom. This program was

able to evolve because of the interpolation of technology through computer mediated communications which afforded students the opportunity to learn from the faculty in Agricultural Education at both institutions. This new concept in joint degree programs is made possible by technology and computer-assisted instruction (CAI).

Technology Growth and Utilization in Education

Technology has continued a rapid advancement with the advent of personal computing. The ubiquitous presence of computers (Stajano, 2002) has enabled students to "develop a broad, deep and creative understanding of community, culture, economics, and international politics, past and present, and acquire the social skills to work across differences and distances" (Riel, 1994, p. 471) by providing "an array of tools for acquiring information and for thinking and expression (allowing) more children more ways to enter the learning enterprise successfully. These same experiences provide the skills that will enable students to live productive lives in the global, digital, information-based future they all face." (Dwyer, 1994, p. 8).

Computers have been used as a part of the educational

process since the 1960s, being introduced as computer-assisted instruction. Today, the continued economies of scale that computers offer to address different student learning styles make computer equipment and computer-assisted instruction increasingly favorable. Computers have a proven record of assisting in educational growth through individualization, increased proficiency at accessing, evaluating, and communicating information, and increasing students' quantity and quality of thinking and writing (Peck & Doricott, 1994).

Computers used in educational instruction have been deployed in a variety of ways. Ranging in use from drill and practice, tutorials, developing problem solving skills, programming, application development, and as a communications medium to instructors, computers have become multipurpose tools of the primary through post secondary educational landscape.

Computers, as well as assisting in educational development, are conduits to enter the educational process. All students who wish to take the Graduate Record Examination in the United States to enter any graduate school must use a computer to take an adaptive test from the Educational Testing Service (ETS, 2002). Technology, in this instance, not only facilitates learning, but is the

gateway to more learning!

At Texas A&M University, like many other universities in the nation, students are responsible for claiming their centralized electronic mail, or "NEO" identification that is translated as a unique 32 hexadecimal character number for each student, faculty, and staff member at the university. This lightweight directory access protocol (LDAP) account becomes their sole conduit to register for classes, pay for school with a credit card, and ultimately communicate with their professors and engage in any online courses offered through the Texas A&M University's distance education platform of WebCT. Technology use has become a cornerstone-enabling element of the modern post-secondary student.

Aside from granting mere "access points" to the educational system, technology through other computer-assisted instruction offers students unique opportunities to learn at their own pace (Steinberg, 1991). Many courses at Texas A&M University now use both the Trans-Texas Video Network (TTVN) and WebCT, a distance learning, web-based technology, to complete their entire courses without ever meeting other class participants in person. This opportunity for the instructor to use technology enables a more organized forum for students to find and utilize

reference materials for courses. Instructors also are afforded the opportunity through technology to prepare course work, keep grades, and maintain information about students.

Students can use technology to aid in the education process by finding research for projects and class requirements. The days of trudging to a traditional library are over for many students (Bell, 2000), as most library consortia have a strong online presence to handle accesses and requests for data for persons from all across the globe. Students can use the resources of the global Internet to find any of this information, anywhere, in seconds assuming they know where and how to search for it.

Entire major fields of study at the undergraduate level are designed to develop, deploy, and use technology as a lifelong career. At Texas A&M University, Computer Science, Computer Engineering, and Information and Operations Management degrees prepare students for careers in dealing with computers. Computers, thus, are an integral part of their educational process.

Technology and Leadership Education

Although direct links between ability to educate and

technology use can be found in multitudes, very little research has been done to this point on using technology in leadership education. Patricia Dillon, an adjunct faculty member at Chapman University in California, laments in 1999 from an unpublished conference paper that "technology and leadership are seldom found in the same sentence" (p. 4) and due to that her choice to research the combined topics "was very discouraging" because "very little had been written about a linkage between technology and leadership." At the 1999 conference of the Association of Leadership Educators, she presented these facts and the results of an experimental class she held at the university.

Her class really fostered the seminal work in the field of technology and leadership education. One key item that was discussed in the context of the class was how technologies could be evaluated against traditional leadership themes such as empowerment, trust, and inclusiveness. It was discovered that new technologies had a potential to have a downside to them. When, for example, a manager has a cell phone with the "Direct Connect" feature like a "walkie-talkie," they can interrupt employees any hour of the day very easily. Instead of facilitating communication and growing trust, constant interruption via this technology could actually reduce a

leader's effectiveness (Dillon, 1999).

It is important to note that leadership focuses on personal qualities found in people, such as charisma, empowerment, inclusion, compassion, and vision. Technology has typically been associated with things, such as cameras, computers, and televisions. Today the increasing pace of the development of these technological things impacts people every day. Empirical logic would tend to indicate, and Ms. Dillon agrees, that these two seemingly opposites of "things" and "people" can come together to benefit humanity in some way (Dillon 1999).

Ms. Dillon found some small solace in her quest for literature on in the work of Mary E. Boone's *Leadership on the Computer*, which the Speaker of the House of Representatives of the United States Congress deemed required reading for all members of the House of Representatives during the 1995 congressional term. Her book explores the lives of sixteen Chief Executive Officers of companies to demonstrate how acceptance, understanding, and utilization of technology helps them to be better leaders.

Unfortunately, even today, almost no literature exists on the impact of technology on either being a leader or in its role in leadership education. The only relevant

course that can be found on technology and leadership is taught by the University of Pretoria in South Africa. It is hoped that this work can provide at least some keys to opening the doors of relationships between technology and leadership.

Ausubel and "Meaningful Learning"

Ausubel, in his work from 1968, stated that "If I had to reduce all of educational psychology to one principle, I would say this: the most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly." (p. 18) This concept establishes the foundation of "meaningful learning." As a cognitive learning theory, the work of Ausubel is still being researched today. Computers, through adaptive behavior, can ascertain a student's level of knowledge and tailor lessons accordingly. Students can build on their basis of understanding of utilization of technology to incorporate new, seemingly unrelated concepts into their cognitive maps.

This research operated under the assumption that students already are computer literate because of computer use increasing in the world and academic requirements to

become computer literate. Thus, the assumption continues that there should not have been any problem with students using computer technology in order to accomplish the mission of computer-assisted education. Students should have been able to take their existing knowledge about computers and use this knowledge as an intellectual framework, whose roots were theorized by Ausubel, to engage in “meaningful learning” via computer-assisted instruction.

CHAPTER III

METHODOLOGY AND PROCEDURE

The purpose of this study was to measure the effectiveness of CAI in teaching leadership education to students enrolled in a leadership course at Texas A&M University. Additionally, this study sought to determine student perception and acceptance of technology as a discussion tool and teaching mechanism, and, finally, to determine the correlation between student self-leadership perception and extent technology acceptance. The research design and methodology used during this study is presented in this chapter.

Sample

A total of one hundred students completed the post-activity survey that was used to conduct this study. These students were enrolled in one of five targeted sections of AGED 340 "Professional Leadership Development" during the Fall 1999 semester at Texas A&M University. Because of the Likert-type scale that was used to calculate statistics,

when students selected the option of "no opinion" their results reduced the sample size. The minimum number of respondents to one of the sixteen post-activity questions was 74, and the maximum number of respondents was 99. The average sample size for the sixteen questions was 87.625.

Design

This study used a post-activity survey to measure perceptions. The 16 questions were categorized and scored as four indices. There were two treatment groups and a control group (Table 1). The varying results of the treatment groups and control group were thus able to be analyzed.

Table 1
Design of the Project. (N = 100)

SECTION 503	SECTION 501/502	SECTION 504/505
Control n = 25	Variable Treatment #1 Asynchronous n = 37	Variable Treatment #2 Hybrid n = 38
Instructions were given to the class to read the activity and come prepared with 5 written responses to discuss in class.	Instructions were given to the class to not come to class next week and to post reactactions to letters instead. Students were to post responses to each other's responses and take the post activity survey.	Instructions were given to the class to read the activity and post and read reactions to discuss the next class. Following that, students were to take the post-activity survey.
Activity handed out on paper.	Activity was at web site http://maytown.tamu.edu/section50[x] where x = 1 or 2 for their section.	Activity was at web site http://maytown.tamu.edu/section 50[x] where x = 4 or 5 for their section.
Classroom discussion of reaction to letters.	Online posting of reaction to letters.	Online posting of reaction to letters.
Classroom discussion of students' reactions.	Online discussion of student's reactions.	Classroom discussion of students' reactions.
Post-activity survey by paper copy	Post-activity survey via the web	Post-activity survey via the web

Experimental Treatments

The Maytown lesson was originally adopted from the University of Oklahoma and is redistributed at Texas A&M University by permission to AGED 340 classes each semester. Web pages based on the original "Maytown" paper lesson were created on a web server for the CAI. A discussion forum was programmed using web server extensions from Microsoft Windows® 2000 Server to allow students to post and reply to their initial responses. The online survey was developed using Microsoft SQL Server® that ported data from the web-based survey application into results in Microsoft Excel®. The computer programming can be divided into two main efforts: digitizing and web formatting the "Maytown" lesson and activity, and creating the discussion posting forum and post-activity survey.

The Maytown activity is included in Appendix D. The basis of the activity was that the students were to respond to what they feel were the five most important out of ten items that have accumulated in their "in box" while they were away. They were to cast themselves in the role of Michael Marzella, the director of a Rural Rehabilitation District for the town of Maytown. Background information about Maytown, Michael, and his staff was available to the

students through hyperlinks from the index page of this web-based information page. In addition, the requirements for the assignment were clearly outlined for them on the starting web page, including times that the phases of the assignment needed to be completed.

Following reading the background and biographical information related to Maytown, students started reading each of the letters in Michael Marzella's "in box," regardless of which experimental group they were in. Each of the letters had some type of controversial content that is designed to prompt student discussion and feedback. Since students could only respond to five of the letters, one goal of the activity is for the students to compare what the other students responded to and discuss with each other why they ranked items in the manner in which they did.

The two treatment groups were presented with the assignment online, and subjects needed to at least make their initial responses to the web page before their next class section. In one treatment group, the "hybrid," students posted their initial thoughts, read over each other's responses and then attended class the next session to discuss. After this next class session of discussion to reaction, these hybrid students posted their reactions to

this activity online with the post-activity survey. The traditional class was presented with paper letters and wrote out their responses to the letters they chose as the most important in advance of the next class session. These traditional students discussed their results in the next class session, and then filled out a post-activity survey by hand. The last treatment group did not attend the laboratory class the next session, instead, they posted their initial thoughts before the time the next class session was due to meet, and then during the following week responded to each other's postings. This last, completely asynchronous group completed their post-activity survey online.

The type of experimental treatment did not affect the content of the post-activity survey, however, the traditional class was given a "paper" copy, while the two experimental treatment groups completed the survey online.

Class Structure and Treatment Assignment

As a part of the AGED 340 class, a laboratory section is required once a week for fifty minutes. The laboratory sessions are taught by teaching assistants and not the class instructor. During the instructor-lead sessions

which are not laboratory sessions, all students are presented the same material at the same time. This lecture portion of the class instructs students on the principals and practice of leadership theories while the laboratory focuses on application of leadership theories through activities.

Because of the size and popularity of this class, during this period, three different instructors taught non-honors sections of this course. Sections 501 through 505, inclusive, were the sections used for this experiment. Students signed up for these classes independently of this experimental procedure. Sections 501 through 505 were taught by the same instructor. Each of the sections had a different teaching assistant for the laboratory session. Sections were assigned their experimental group by choosing slips of paper out of a hat that had section numbers labeled on them. Sections 501 and 502 were randomly chosen to receive the experimental treatment of a completely asynchronous activity involving only the computer to directly interact with for the assignment. Section 503 was chosen randomly as the traditional classroom control. Sections 504 and 505 were randomly chosen to receive the hybrid treatment of both instruction and CAI as their variable experimental treatment.

Instrumentation

Two instruments were used to collect data from this assignment. Students who were in either variable treatment group had their online responses collected for a completion grade by the web programming for the discussion board. It recorded their name, response, what time they posted the response, and where the response was posted from in terms of its Internet Protocol (IP) address. This server was permitted to advertise its web services through the Texas A&M University firewall so students could access both from on-campus and from any other Internet service provider in the world.

The second instrument used in this study was the post-activity survey completed by sections 501, 502, 504, and 505 online (the asynchronous and hybrid groups). Section 503 (the control group) submitted paper copies of this survey. This survey is included in Appendix A. There were a total of sixteen questions on the post-activity survey that asked students to rate their answer to the question with the following Likert-type responses: strongly agree, agree, disagree, strongly disagree, or no opinion. For quantitative analysis, these answers were valued from four to one, respectively. "No opinion" responses were

tabulated for totals, but were not included in any of the statistical results that were generated. A qualitative section in this instrument was provided for students to provide whatever comments they felt would be appropriate regarding their experiences during this activity.

The second instrument's results for the two variable treatment groups were automatically parsed by Microsoft's SQL Server®. The results from the control group were tabulated and recorded by hand into Microsoft Excel®. From the questions in the survey, four indices were developed to assist with providing the answers to the objectives. The post-activity instrument's questions were specifically developed to be added to indices later. The duration of the instrument was kept short (at a total of sixteen questions) to hopefully facilitate more students submitting responses. The indices created from the post-activity survey are shown Table 2.

Table 2
Indices Created from Survey.

Short Name	Long Name	Question Numbers
LP Index	Leadership Perception Index	2
TP Index	Technology Perception Index	7, 8, 9, 10, 11, 12, 13
340TA Index	AGED 340 Technology Acceptance Index	3, 4, 5, 6, 14, 16
DTA Index	Discussion Technology Acceptance Index	1, 15

Each of these indices was compiled to find the Likert-type values associated with each one of these indices. Based on the Likert-type responses from strongly agree to strongly disagree directly corresponding to a four through one scale, the indices made it possible to analyze holistic positive or negative attitudes toward each higher-level index. All of the survey questions are written with a directed, positive statement and do not use any converse statements that would require students to indicate "disagree" to actually indicate a favorable, or "positive" response. Because of this construction in the instrument design, the indices can be compiled to find "positive" reactions to the index where students' responses lead to a 2.5 or higher, and "negative" reactions to index values where the students' responses lead to a 2.5 or lower.

Data Collection

The treatments and surveys were administered during the Fall 1999 Agricultural Education 340 course "Professional Leadership Development." Students were required to complete the post-activity survey as their attendance grade for that laboratory session. Students provided their responses either online or via paper copy depending on their experimental treatment group. The online form was developed and coded using Microsoft Frontpage® linked to Microsoft SQL Server®. The online form was printed straight from the compiled web page and copied onto 8.5" x 11" white paper for the control group, which completed the post-activity survey by hand at the end of the "letter reaction" class session.

The other sections accessed the post-activity survey web page asynchronously at http://maytown.tamu.edu/section50[x]/post-activity.htm (where x = 1, 2, 4, or 5 depending on the student's section they were enrolled in). Microsoft SQL® Server ported the online data to Microsoft Excel® files which were used for data mining. Students on all of the post-activity surveys identified themselves by both their section and the last five digits of their Texas A&M University student identification numbers. These

numbers, since they are not complete, do not pose a security risk for the students and can only be matched to names by authorized personnel at the university who can review such data, such as the class instructor.

Analysis of Data

There is a large amount of both quantitative and qualitative data that were collected from the students during their participation in this activity. The actual activity itself, where performed online, contains a wealth of information about where students use computers, both on and off campus, at what times they post, and the quality (or lack thereof) of their responses to this assignment. For the purposes of this research, although there is a lot of this information, it is spurious in nature with regards to the intent of finding out the effectiveness of CAI in leadership education and addressing the objectives of this thesis. As such, the quantitative and lesser amount of qualitative data from the post-activity survey will be explained in obtaining research results.

The data collected from the administration of the post-activity survey was analyzed using Microsoft Excel® on a personal computer. Frequencies, means, modes, medians,

standard deviation, analysis of variance (ANOVA) using confidence levels of alpha equal to 0.05, correlation of results across indices, and minima and maxima means calculated through regression will be employed to illustrate results where appropriate. The quantitative results for the Likert-type scale students were presented with were compiled by individual section, and additionally by treatment type, and by entire sample size, regardless of treatment.

The Likert-type scale included five possible answers, assigned the following values for data analysis purposes: 4- "strongly agree," 3- "agree," 2- "disagree," or 1- "strongly disagree." Respondents who chose the "no opinion" option were counted for frequency; however, these results were omitted from the statistical analysis, thus lowering the sample size for that question if the "no opinion" option was selected. Based on these post-activity survey responses, an analysis of each question by both section and treatment group was completed.

For each section, treatment, and the total sample size, the total number of valid (that is, not "no opinion") results were counted as "eligible responses." The Likert-type scale's sum of all respondents' choices for each question was obtained. A frequency analysis was conducted

to determine the mode. The total number of eligible responses was divided into the total sum of all the respondents' answers to each question. This obtained the mean for the question. The median was also obtained for each question. All of these statistics were calculated by section, treatment, and entire sample size across all the experimental treatments and control group.

Standard deviation was calculated for each question in order to determine the confidence value with an alpha equal to 0.05. From this confidence interval, both minima and maxima mean could be determined through regression. It should be noted that in the individual sections (with the exception of the larger section 503 (control) on its own) means vary more than their combined treatment group (sections 501 and 502 together (asynchronous), sections 504 and 505 together (hybrid)).

Analysis of variance (ANOVA) was used to compare the three groups. Correlation techniques were used to determine relationships between indices.

CHAPTER IV

FINDINGS AND RESULTS

This chapter contains information related to the students' perceptions of the leadership activity, their feelings about technology deployment and utilization, their feelings about themselves as leaders, and how open they were to utilization of technology in the Fall 1999 semester course, AGED 340 "Professional Leadership Development," at Texas A&M University.

The purpose of this study was to determine the effectiveness of computer-assisted instruction (CAI) on leadership education, and to determine student perception and acceptance of technology as a discussion tool and teaching mechanism. This study was conducted with three main objectives. These objectives were to:

1. Determine the appropriateness of utilization of technology as a leadership education teaching medium,
2. Evaluate student perception and acceptance of technology as a discussion tool and teaching mechanism,
3. Determine the correlation between student self-leadership perception and extent technology acceptance.

These objectives guided the choice of relevant data

obtained during the study and its subsequent statistical analysis. Findings for each of these objectives will be discussed in this chapter.

Findings Related to Objective One

Objective one was to determine the appropriateness of utilization of technology as a leadership education teaching mechanism. To accomplish this objective, the control and treatment groups were given a post-activity survey to measure their attitudes toward interpolation of CAI into leadership education.

In analyzing the "appropriateness" of technology incorporation, three of the indices that were compiled were used, the 340TA index identifying the acceptance of technology in AGED 340, the DTA index, identifying the acceptance of technology as a medium for discussions, and the TP index, which identified the acceptance of technology in general. The 340TA index was composed of questions which had Likert-type choices of strongly agree, agree, disagree, strongly disagree, or no opinion. The "no opinion" responses were counted for frequency, but excluded from statistical calculations. The remaining eligible responses were assigned values from four to one,

inclusively, and respectively. The questions used in the 340TA index calculation are identified in Table 3.

Table 3
Questions Comprising the 340TA Index

3. I wish there were more opportunities to use technology in AGED 340 to work at my own pace.
4. Computers are helpful in learning AGED 340 concepts.
5. The use of computer technology has enabled me to be more productive in this course.
6. I would like to see more AGED 340 lab assignments on computer.
14. I feel like the discussion I gained from this activity was good.
16. I think AGED 340 could be taught successfully by distance-learning technologies such as the web.

The DTA index, as the discussion technology acceptance index was designed to measure students' attitudes to using technology to facilitate discussion. The DTA index was composed of questions which had Likert-type choices of strongly agree, agree, disagree, strongly disagree, or no opinion. The "no opinion" responses were counted for frequency, but excluded from statistical calculations. The remaining eligible responses were assigned values from four to one, inclusively, and respectively. The questions used in the DTA index calculation are listed in Table 4.

Table 4
Questions Comprising the DTA Index

1. I feel like the level of technology used in this activity helped me understand the activity better.
15. I feel like I would be able to be more open with my AGED 340 comments if all discussions were in an online format.

The TP index, as the technology perception index was designed to measure students' attitudes to using technology to facilitate discussion. The TP index was composed of questions which had Likert-type choices of strongly agree, agree, disagree, strongly disagree, or no opinion. The "no opinion" responses were counted for frequency, but excluded from statistical calculations. The remaining eligible responses were assigned values from four to one, inclusively, and respectively. The questions used in the TP index calculation are listed in Table 5.

Table 5
Questions Comprising the TP Index

7. I am comfortable using computers.
8. In the future, computers will be used as a part of teaching techniques for all college classes.
9. Computers are becoming necessary to perform work efficiently.
10. In completing assignments, classes that use computers take less time than classes that do not use computers.
11. Computers help reduce the workload encountered in the home, school, and workplace.
12. Computers are important in my present major.
13. Computers are important to my future.

The differing experiences of the control group and treatment groups shows a difference in agreement with regards to acceptance of technology on the 340TA index and acceptance on technology in discussions on the DTA index. Figure 1 exhibits these results.

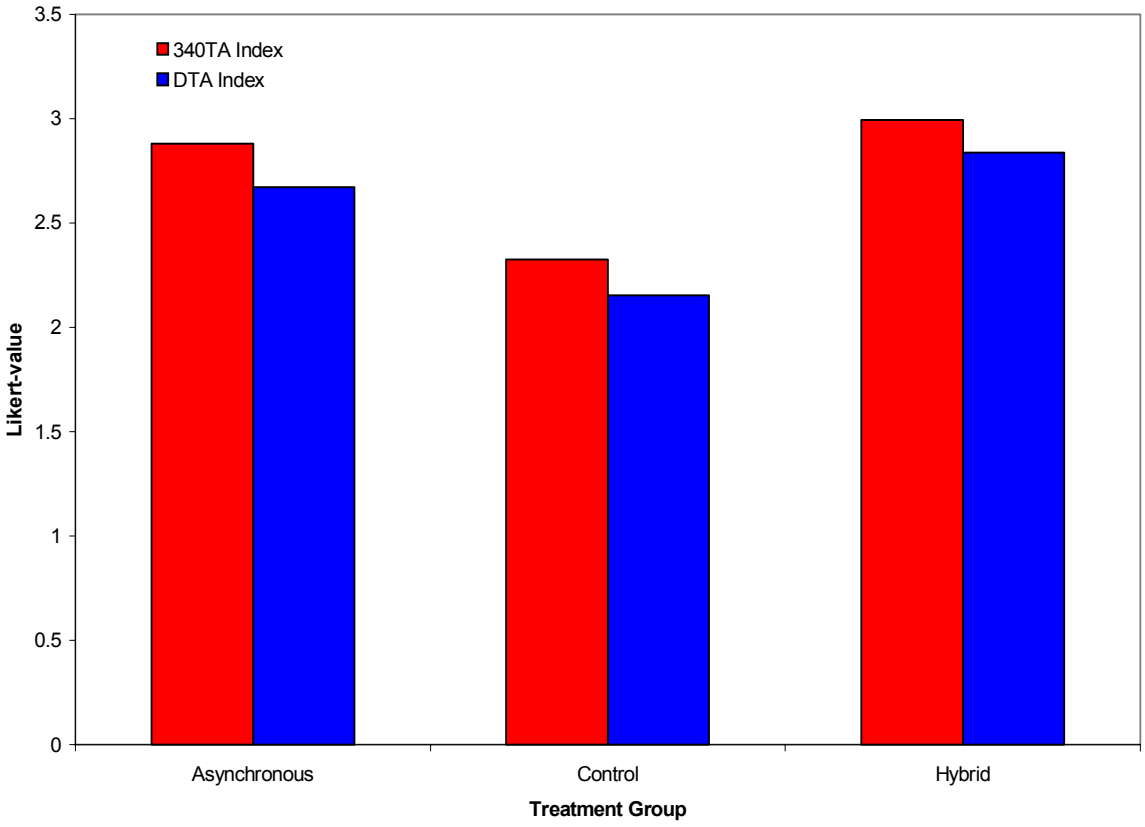

Figure 1. Mean Likert-value of treatment groups response with regards to the 340TA index and the DTA index.

Figure 1 shows lesser acceptance toward usage of technology from the control group. Both of the variable treatment groups that had been exposed to technological usage in leadership education felt that it was possible, on average, to incorporate technology successfully into leadership education. The control group, which was not exposed to technology, did not feel that the incorporation of CAI into AGED 340 would be successful.

The group that was exposed to the hybrid treatment of both traditional classroom instruction and technological utilization had the highest acceptance index values of discussion technology and utilization of technology in AGED 340, while the fully asynchronous group had a slightly lower, but still positive, acceptance value of technological deployment across both indices.

In order to understand the ability to utilize technology in a leadership education classroom, understanding students' perception of technology inclusion is integral to that process. In order to measure the success of technology utilization and deployment, student perceptions have been tabulated. From Ausubel's "meaningful learning," students will be able to learn more information if they can relate to a base of technology and then apply that base toward building new knowledge on

leadership education. Since students generally agreed with the 340TA and DTA indices, it could be conjectured that technology utilization is appropriate for leadership education.

Individual results for the indices show an acceptable degree of internal consistency across each index. In Figure 2, the data from all the treatment groups is analyzed across the 340TA index. In Figure 3, the data from the DTA index is analyzed for all treatment groups. The means for each question in the indices is shown by treatment group. For the asynchronous variable treatment group, from regression computation with an alpha equal to 0.05, there is only the possibility of a Type I error occurring on question 14 on the 340TA index based on this confidence level. Question 15 on the DTA index also has the possibility of a Type I error being made at the same confidence level.

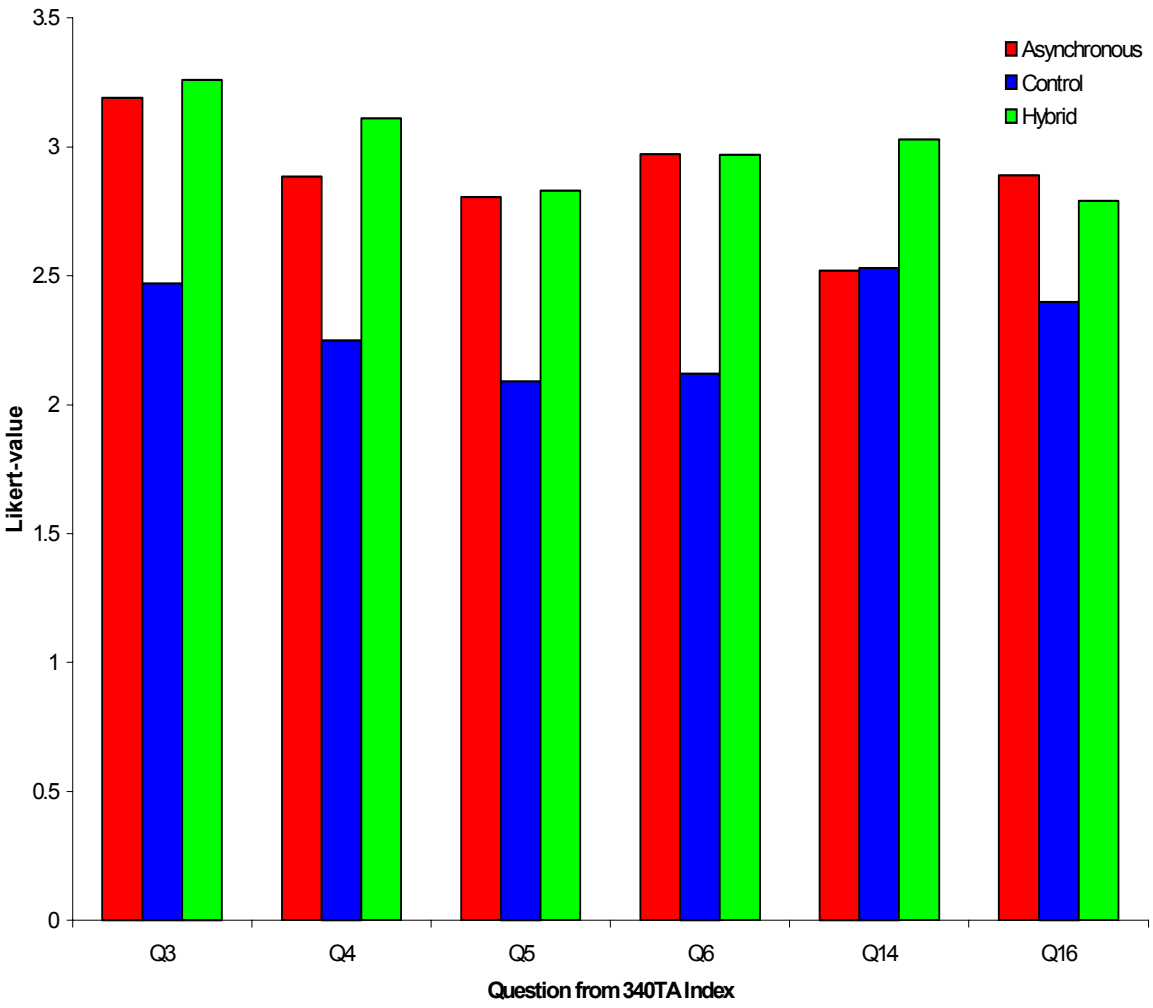

Figure 2. Mean answers across all treatments for questions on the 340TA index.

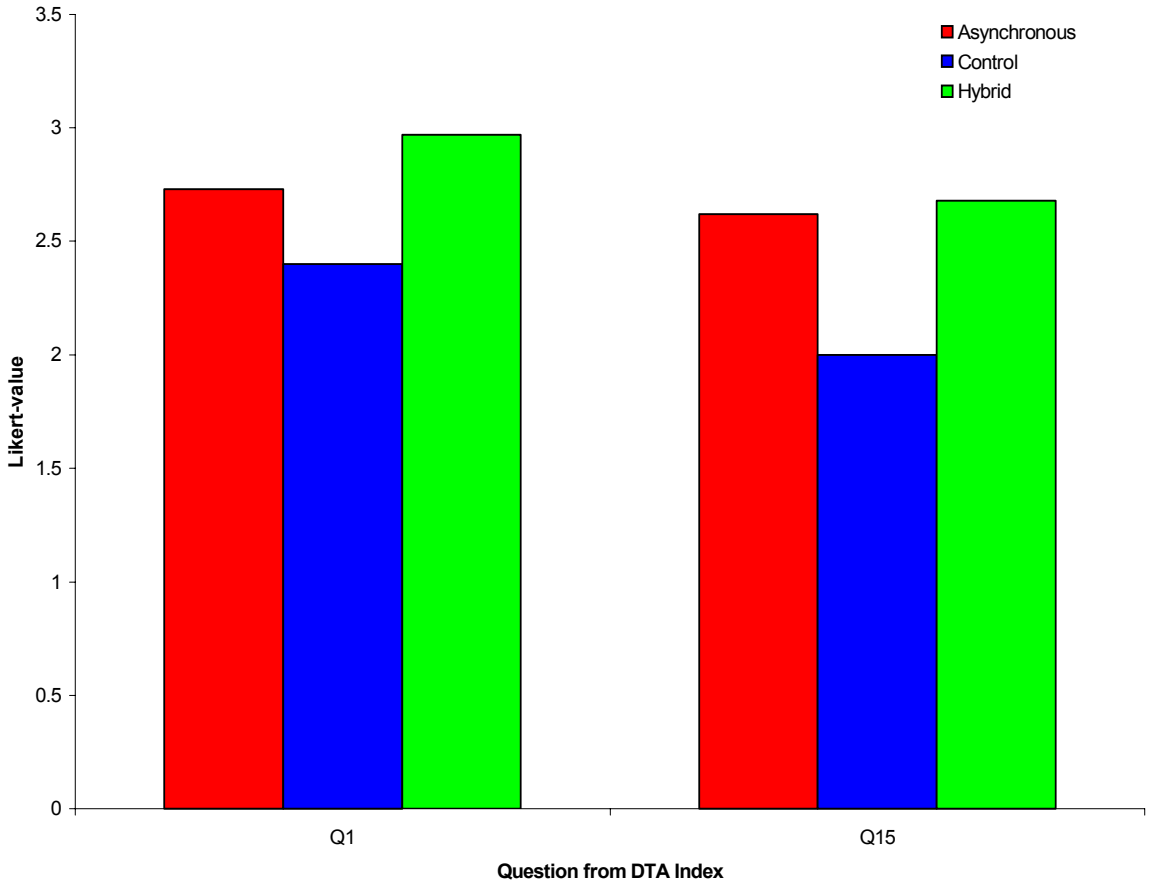

Figure 3. Mean answers across all treatments for questions on the DTA index.

The control group, which comprised the traditional classroom group, shows lower acceptance across the board on both the 340TA and the DTA indices. The possibility exists on all the questions from the 340TA index of making a Type I error after performing regression analysis to an alpha of 0.05, unfortunately. The sample size the control group was the smallest. Although the individual section had the largest number of respondents, this control group, at one section of students, was smaller than the two sections comprising each of the other treatment groups. With an alpha set at .05, the spread becomes impossible to conclusively determine real values at the "agree/disagree" a statistical separator at 2.5 on the Likert-type scale. A lower confidence level would have to be employed to rule out the possibility of a Type I error being made. The DTA index for section 503 did not reflect the possibility of a Type I error occurring. Figure 2 looks at the component questions from the 340TA index of the control group with an analysis of minimum and maximum possible means based on an alpha of .05. Figure 3 looks at the component question values from the control group with regards to their DTA index component answers.

The hybrid group, in total, had the most positive general attitudes toward the question components of the

340TA and DTA indices. Although no Type I errors were visible from the 340TA index based on regression analysis, there is the possibility that question 15 from the DTA is subject to a Type I error. Figure 2 looks at the component questions from the 340TA index from the hybrid group with an analysis of the minimum and maximum possible means based on an alpha of .05. Figure 3 looks at the component question values from the hybrid group with regards to their DTA index component answers.

In order to understand whether or not students accept technology, and whether or not this acceptance affords an acceptable teaching and discussion method, the Technology Perception index, or TP index, was created from post-activity survey questions 7, 8, 9, 10, 11, 12, and 13. This index measures students' attitudes toward technology. In order to determine the appropriateness of technology as a leadership education teaching mechanism, a null hypothesis can be developed measuring the analysis of variance between the TP, 340TA, and DTA indices and hypothesizing that there is no difference in attitudes toward all three indices across all the treatments of the experiment.

Table 6
ANOVA: Objective One

Groups	*Count*	*Sum*	*Average*	*Variance*
TP Index	3	9.72	3.24	0.019
340TA Index	3	8.20	2.73	0.128
DTA Index	3	7.66	2.55	0.127

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*p-value*
Between Groups	0.757	2	0.378	4.133	0.0743
Within Groups	0.549	6	0.092		
Total	1.306	8			

Table 6 shows that the TP, 340TA, and DTA indices are all related in the sense of general acceptance of technology, acceptance of technology being used to teach AGED 340, and technology used in discussions. The analysis of variance across all sections, regardless of treatment, shows technology inclusion as favorable.

Findings Related to Objective Two

In order to understand whether or not students accept technology, and whether or not this acceptance affords an acceptable teaching and discussion method, it is first important to understand students' reaction to technology itself. The Technology Perception index, or TP index, was created from post-activity survey questions 7, 8, 9, 10, 11, 12, and 13. To put the cart before the horse, if students reject the notion of technology itself as a useful tool, it can be easily stated that addition of CAI will not benefit the students as their learning will not be meaningful.

Figure 4 shows the results of the TP index by treatment group. Although the control group was significantly lower in agreement about the positive force of technology in general, the mean for all the treatment and control sections indicated a Likert-type level of at least "agree" (with the qualitative mean greater than 3.0) to the concepts posed by the questions of the TP index. This agreement of the positive nature of technology builds the framework for technology being an acceptable medium for classroom instruction.

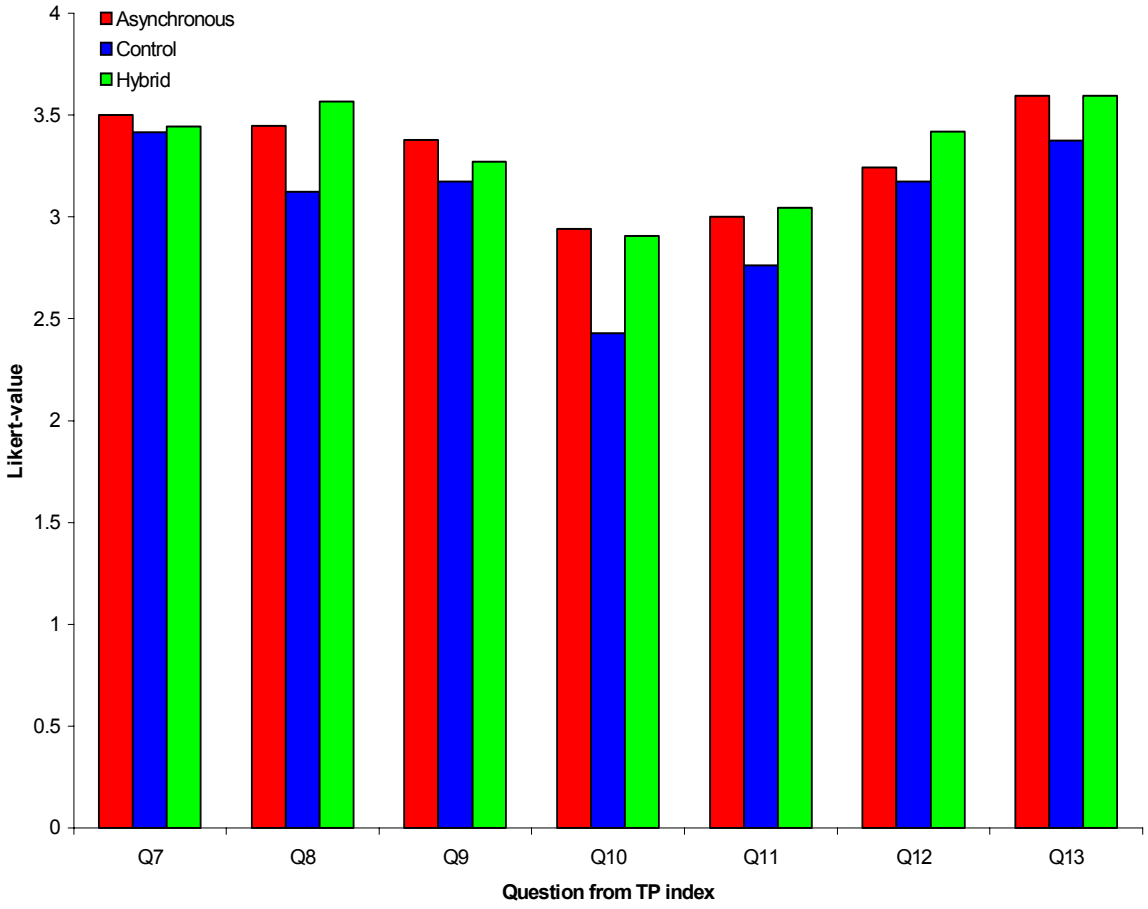

Figure 4. Mean answers across all treatments for questions on the TP index.

Objective two, is in many ways, a subset of objective one. The appropriateness of utilization of technology from objective one is directly based on student perception of technology as a discussion and teaching mechanism. The results from objective one's 340TA and DTA indices are directly applicable to objective two.

In completing the assignment of the post-activity survey, students were given the opportunity to complete a free form response section that posed to them "I would like to provide the following comments about this experience." A variety of useful qualitative data was obtained from 37% of the total respondents across all the sections. Only 8% of this 37%, however, came from the control group as part of a non-weighted analysis. A weighted analysis would have expected 25% of the 37% of the total qualitative responses from students to come from the control group. It can be inferred that students were much more likely to leave qualitative responses when they could type their answers as opposed to having to write them by hand.

The "chunking" of the qualitative responses into themes by variable treatment or control group resulted in three themes students generally identified: the assignment was interesting due to using technology, the instructions from either the teaching assistant or on the web were unclear, and using computers is, unfortunately, going to increase, but there is a negative social element to this increase.

In receiving the completely asynchronous treatment, one student describes, "I think this computer experience was educational in learning more about Aged [*sic*] 340. But

we can[’t] rely on computer classes to teach us(students) [*sic*] everything we should know. We still need classroom instruction.” Another student from this treatment identified that “I believe computers need to be incorporated to all classes, but I do not feel that they should take away the value received from interacting with other people.” These students who were forced to interact solely with the computer clearly identified the missing “social” component of instruction. This lack of a face-to-face social interaction was summed up well by this student, “how [*sic*] can it help with discussions if you're only typing on a computer. AGed [*sic*] 340 is learning to deal with people. On the web someone will say anything because they don't have to be in the same room with people so they are less likely to watch their tongues. Face to face contact allows one to have to deal with anothers [*sic*] facial and body expressions which are major parts of communication.” This completely asynchronous group (n = 38) had a 50% response rate to the qualitative feedback section, dramatically more than the other two groups.

Most students in the asynchronous group had solely positive comments to make about their experience. Of the nineteen respondents, 57.9% indicated solely positive experiences from this activity. Students’ positive

experiences could be "chunked" into two groups: they enjoyed completing the assignment over the Internet because of the time flexibility it gave them to do the assignment at their leisure and have time to formulate a response, and they found the assignment "enlightening, " "interesting," "cool," or "different."

A total of 21.05% of respondents from the asynchronous group found the exercise confusing, either from the instructions the teaching assistant gave them, or the instructions and requirements for the assignment from the web page. A final 21.05% found the exercise to be "negative" because of social concerns.

The control group, as aforementioned, lacked a significant number of qualitative responses. This control group had the traditional classroom instruction utilized. Most chose not to avail themselves of the opportunity to handwrite responses into the comments section. One student identified the need to enhance skills with the personal computer because "computer/distance learning is the future." Another student identified that they would most likely not have completed the assignment because it would have required them to print out 26 nearly empty pages of paper. The student did not want to read the material online and felt that they would have to print it, but did

not want to because of environmental concerns!

The technology hybrid section had a total of 39.4% of qualitative respondents. Comments from respondents in this treatment group could be "chunked" four ways: students had problems with the instructions or features, students enjoyed the experience and had positive comments, students did not like the social ramifications of the experience, or just that using computers themselves was a good experience. A total of 20% of students felt that similar to the feelings of one student who stated that "computers are the future and need to be implemented in every college class." Nearly 46.7% of students identified that the experience was generally positive. An additional 20% of students identified that the experience was marred by having difficulty with the instructions or the web page technology. One student from this category wanted a "spell check" function on the postings web page. Finally, 13.3% had negative feelings about the technology used due to social concerns. One student in this category identified "It is all about interaction w/ [*sic*] people and if it was only on the web. [*sic*] It would be yuck! [*sic*]"

An analysis of the qualitative data from all the sections shows a common theme. Both sets of students subjected to CAI variable experimental treatments

identified a negative social component involved with using CAI. Yet, the qualitative results seem to indicate that, despite this negative social concern, students generally accept technology utilization in leadership education. The qualitative section apparently gave students the chance to address a concern they do not feel was adequately represented in the instrument- and should have been. Across the three experimental groups, 18.4% had negative feelings about using technology to teach leadership education. A total of 44.7% of respondents listed opinions that were coded into positive responses. The remaining responses were outliers or the 18.4% that had a problem with the instructions on the web page or from the teaching assistant for the laboratory section.

In evaluating the student perception and acceptance of technology for discussions and leadership education, both qualitative and qualitative data indicates that students accept technology as an aid. Some students raise the concern over having technology as the sole instrument of a teaching portfolio. Those that do not share that concern enjoy the freedom to generate responses and complete assignments in their own time and at times that are convenient for them.

Appendix C contains the raw qualitative data from

students.

Findings Related to Objective Three

Objective three wanted to determine the correlation between student self-leadership perception and their acceptance of technology. The goal of this objective is to establish a base understanding of whether or not people that think that they are leaders accept technology. A Leadership Perception index, or LP index, was established in the post-activity survey by one item that was coded by respondents in a Likert-type scale. The survey item was contained in question two, "I would perceive myself to be a strong leader." Students were able to choose from four responses: strongly agree, agree, disagree, strongly disagree, or no opinion. The respondents who chose the "no opinion" option were tabulated for frequency, however, not included in statistical analysis. Figure 5 shows the results of the LP scale across the three sections.

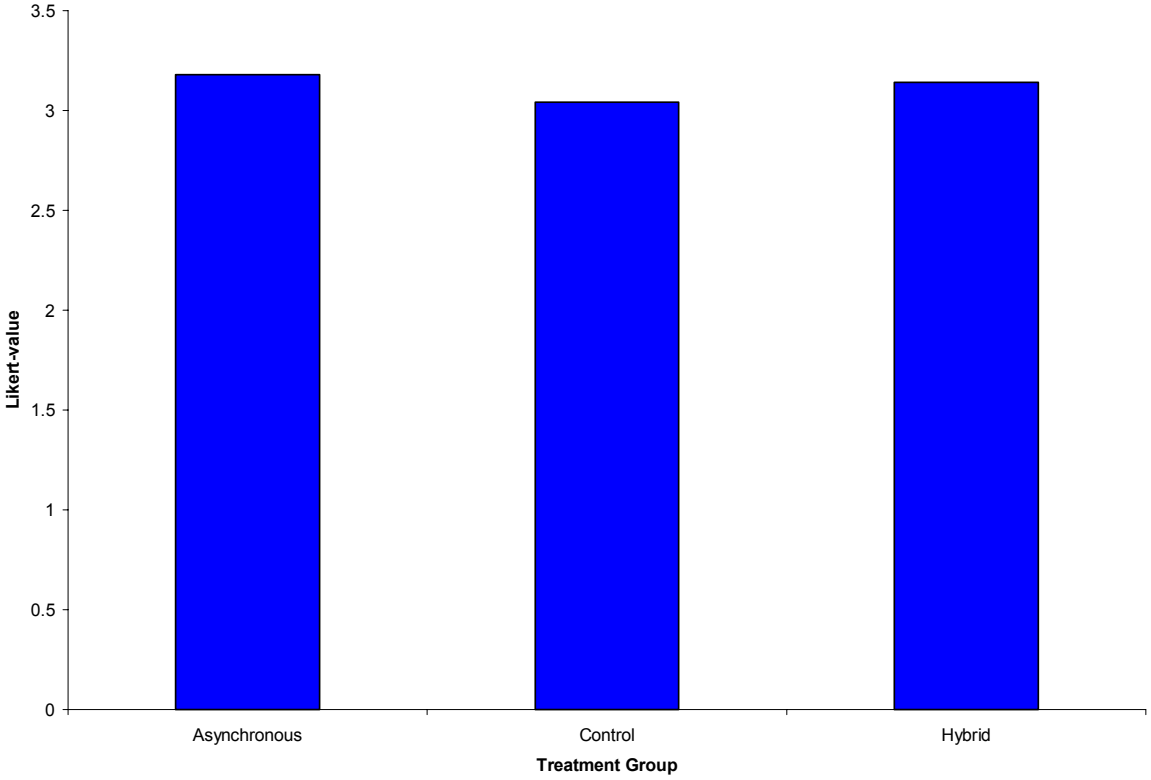

Figure 5. Mean score for all treatments for the LP index.

A null hypothesis that the students that believe themselves to be leaders have more accepting attitudes toward technology was created. Measuring the variance of the TP index against the LP index across all three treatment groups, the analysis of variance results (Table 7) showed that the null hypothesis can be accepted.

Table 7
ANOVA: Objective Three

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
LP Index	3	9.36	3.12	0.005
TP Index	3	9.72	3.24	0.019

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*
Between Groups	0.0213	1	0.0213	1.788	0.252
Within Groups	0.0476	4	0.0119		
Total	0.0689	5			

Most students had a predisposition to perceiving themselves as a leader, and accepting of technology.

In order to run the analysis of variance (ANOVA) across all three treatments, it is important to note the correlation value in-between sections. For sections 501/502 to 503 (the asynchronous to traditional classroom), the correlation value of class means for all survey questions was .8455. In between sections 503 and 504/505 (the traditional to hybrid environments) the correlation value of all class means for all survey questions was .8644. Sections 501/502 and 504/505 (the asynchronous and hybrid groups) calculated in the same way resulted in a correlation value was .8696. All the results are sufficiently correlated to warrant holistic inclusion in

the analysis of variance of results.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter V discusses a summary of Chapters I through IV, and offers conclusions drawn from the findings presented in Chapter IV. Additionally recommendations for further research and future experiments of the same vein are presented. The first part of Chapter V summarizes the purposes and objectives of the study, the literature review, the methodology, and findings of the study. The second part of the chapter offers data analysis of the findings and draws conclusions based on the findings. The final part of the chapter offers recommendations for additional research based on the results of this experiment and recommendations for future action based on these results.

Summary

The purposes of this study were to determine the effectiveness of a computer-assisted lab environment in a course on leadership and to determine if undergraduate students believe that leadership concepts can be successfully taught in an asynchronous environment.

Students' attitudes toward computer-based leadership education were measured by a leadership perception index, a technology perception index, a class-inclusion acceptance index, and a discussion technology acceptance index administered through a post-activity survey that measured their responses in both a quantitative and qualitative format.

Due to the increased computing power and decreased cost of computers, measuring students' acceptance of computers as a teaching media has become increasingly important as the post-secondary education of students continues to grow. There is a paucity of research on the uses of technology in the field of leadership education. This study should add to the knowledge base about this topic. In particular, this study established the following objectives:

1. Determine the appropriateness of utilization of technology as a leadership education teaching medium,
2. Evaluate student perception and acceptance of technology as a discussion tool and teaching mechanism,
3. Determine the correlation between student self-leadership perception and extent technology acceptance.

A review of literature for this study discussed technological growth and its subsequent usage in education, technology in the field of leadership education, and the concept of Ausubel and "meaningful learning."

Technological growth continues to increase with Moore's Law (Meieran, 1998) and this will continue to impact the ability to use computers for asynchronous learning tailored to students' individual learning styles (Steinberg 1991). Students have embraced the changes in technology to make activities such as a journey to a physical library obsolete (Bell, 2000). Students now have the ability to find information on a compact disc that would have amounted to an entire printed set of encyclopedia (Fain, 1992).

In the field of leadership education and the use of technology to teach it, little research has been completed. Dillon lays the framework from her conference presentation in 1999 that technology and leadership do work together, and she laments on the lack of research that has been conducted in this area.

David Ausubel, in his 1968 work, identifies the concept of "meaningful learning" that a student's base of understanding is the constructive framework which can be used to build new ideas. Since modern university students

have an understanding of the computer, this framework, he would suggest, is the basis for cognitive learning via computer-assisted instruction (CAI).

The population of this study included students enrolled at Texas A&M University in Agricultural Education 340 "Professional Leadership Development" in sections 501 through 505, inclusive, during the Fall 1999 semester. Students participated in a laboratory section entitled "Maytown" through one of three treatments: a completely asynchronous experience, a traditional classroom experience, or a hybrid experience of classroom and asynchronous participation. The asynchronous participation that students in one of those treatment groups used was to log in to a web page designed for the laboratory session and to read the content and interactively post some sort of responses to the activity's "posting" web page.

A post-activity survey was used as an instrument to collect both quantitative and qualitative data about the students' experiences in order to determine the objectives of this study. The other instruments used in this survey focused on presentation and entering of the assignment to the non-control groups using asynchronous technology via the web. This information the second instrument gathered was data from the activity experience, and although data

was recorded, information on the student's postings, date of postings, and locations of postings, this data was not factored into the results of the objectives of this study.

Students were assigned to variable or control experimental groups by random selection. The traditional class group, section 503, enjoyed a traditional class presentation and discussion of the lesson, while handwriting their responses to the post-activity survey on a copied paper after the activity's completion. Students in sections 501 and 502 had a completely asynchronous experience, where they did not come to class the next week, and instead, read the assignment and completed their initial responses before the next class session would have been held. During the class session that they were able to work asynchronously, and they posted responses to their classmates postings in the form of an online discussion. Lastly, the asynchronous sections 501 and 502 filled out their post-activity survey online. Sections 504 and 505 were presented with a hybrid experience that enabled them to read the assignment and post their initial responses to it online, and then come to class and discuss the results. They also filled out the post-activity survey online following their in-class discussions.

The data that was collected from the post-activity

survey was analyzed using Microsoft Excel® on a personal computer. Descriptive statistics were used to analyze appropriateness of leadership education through technological means based on students' perceptions related to their experiences during the "Maytown" activity. Students' perception of technology related to their perception of their own leadership ability was also measured. Data was measured by compiling indices based on the sixteen question post-activity survey.

Findings Related to Objective One

Objective one of this study was to determine the appropriateness of utilization of technology as a leadership education teaching mechanism. The findings were as follows:

1. In the experimental treatments groups that were exposed to using technology, the students felt that interpolation of technology would be successful in leadership education. Students in the control group, who were not exposed to any technology during this assignment, did not feel that integrating technology into leadership education would be effective.

2. Students in both experimental treatment groups expressed some reservation about being confined to a wholly asynchronous experience because of social concerns.
3. Indices designed to measure students' perceptions to inclusion of technology in AGED 340 and discussions online measured the appropriateness of utilization of technology.
4. Analysis of variance across students' technology perception index, the acceptance index in AGED 340, and acceptance of discussion technology online as a whole confirmed a null hypothesis that regardless of experimental treatment, students accepted technology, discussions using technology, and inclusion of technology in leadership education.

Findings Related to Objective Two

Objective two sought to evaluate student perception and acceptance of technology as a discussion and teaching mechanism. Due to the type of quantitative research conducted, objective two became a sort of subset of objective one. The statistical information from objective

one equally applied to objective two as a measure of students' perceptions. Because of Ausubel's "meaningful learning," students need to understand technology in order for it to be a successful teaching medium. "Appropriateness," thus, of objective one is established by student perception.

Qualitative data was analyzed in addition to quantitative data for objective two. The results of research into objective two found:

1. Students responded qualitatively to the data in one of three ways regardless of control group, that: the assignment was interesting because of using technology, the instructions from either the teaching assistant or on the web were unclear, and using computers is, unfortunately, going to increase, but there is a negative social element to this increase.
2. The majority of students both qualitatively and quantitatively accept technology and its ability to be used as a teaching tool, corroborating with Corbett's results from 1992.
3. Students are concerned about technology being solely used as an educational offering in place of traditional teaching.

Findings Related to Objective Three

Objective three wanted to determine the correlation between students' self-leadership perception and their opinions on technology. Findings related to this objective are as follows:

1. Most students in AGED 340 evaluate themselves as leaders.
2. Most students in AGED 340 were accepting of technology.
3. Analysis of variance between the leadership perception (LP) index and the technology perception (TP) index confirmed a null hypothesis that students who believe themselves to be leaders have favorable attitudes toward technology.

Conclusions

The following conclusions were based on research from this study as detailed in Chapter IV and summarized in the previous section.

1. The majority of students favor using technology to teach leadership education because they feel that it is an

appropriate technology and they enjoy the freedom and flexibility it gives them.

2. Students in the course all accepted the role of technology in the world and in the world of education although many were concerned about the lack of direct, face-to-face interaction. Students made sure to mention in their qualitative responses that the role of teachers is important in the educational process.

3. Students who had the highest acceptance of technology utilization in teaching leadership education were those that had the hybrid experience of both getting classroom education and being able to participate in a partially asynchronous experience. This leads to the conclusion that although these students rated technological interpolation highly, they may not have rated it quite so highly (as their completely asynchronous peers did) had they been exposed to an only asynchronous experience.

4. If students used technology in their laboratory experience, they were more accepting of technology in general, and utilization of technology in leadership education. The exposure to technology for variable treatment group participants "sweetened" the idea of technology utilization for them.

5. Survey results indicate that regardless of

treatment type, students were able to learn from this assignment.

6. Students completed their activities during all hours of the day and night when they were assigned to one of the technology-utilizing treatment groups. Students would most likely be amenable to holding more classes at night.

7. Some students will respond more to educational opportunities in an asynchronous environment, as evidenced by the differential response rate of the qualitative analysis section by students according to experimental treatment type.

8. Clear instructions need to be given to students in advance of attempting to complete an asynchronous assignment.

9. There is a link between being a self-perceived leader and positive ideas about technology. This leads to the conclusion that leaders today may need to understand technology in order to be successful leaders. This would represent a "resurrection" of the "trait theory" of leadership.

Recommendations

Recommendations for Practice

Based on the findings and conclusions from this research study, the following recommendations for practice are made for instruction using computer-assisted instruction in leadership education:

1. Instructors should tailor their curriculum to meet the lowest common denominator of student technological ability to achieve Ausubel's "meaningful learning." A combination of traditional classroom and computer technology utilization appears to best meet the needs of students.

2. When using computer technology, ensure that the technology is documented appropriately by instructions so that students will be able to learn about the desired lesson, not focus on the technology and its problems. Additionally, make sure documentation includes sample responses or adequately quantifies expectations of participation in online activities.

3. In reaching out to quieter students, online discussions may foster them to put forward more discussion.

4. Students fear a loss of social interaction because

of technology deployment in education. Work to mitigate students' fears by ensuring appropriate "face-to-face" social contexts exist in the class.

5. This study indicates that computer-assisted instruction is an effective method for teaching leadership education. More software or activity development needs to be converted to the computer to meet the widest variety of instructional needs and situations.

Recommendations for Additional Study

The findings in this study led the researcher to propose that additional research be undertaken in the following areas:

1. This study should be repeated on a wider scale, using similarly "simple" technology to confirm this study's results.

2. This study should be refreshed for more up-to-date content.

3. New technologies have entered the educational marketplace. These products should be evaluated for leadership education potential.

4. A larger population of students should be surveyed after online experiences to evaluate their perceptions of

technology utilization in leadership education using a more broadly constructed instrument to improve index consistency.

5. Research should be undertaken to see if changes to trait theory have occurred and that successful ability to be a leader is a result of understanding and being able to use technology.

REFERENCES

Ausubel, D. (1968). *Educational Psychology: A Cognitive View.* London: Holt, Rinehart & Winston.

Bell, Stephen J. (2000, November 21). COLLIB-L discussion on Questia. Message posted to COLLIB-L electronic mailing list, archived at http://www.libr.org/Juice/issues/vol3/LJ_3.46.sup.html

Boone, Mary E. (1991) *Leadership and the Computer: Top Executives Reveal How They Personally Use Computers to Communicate, Coach, and Compete.* Roseville, CA: Prima Publishing.

Corbett, Mona Rae. (1992). *The Effectiveness of Computer-Assisted Instruction in a Horticultural Plant Identification Course.* M.S. Thesis, Texas A&M University.

Department of Agricultural Education. (2001) [Brochure]. College Station, TX: Leadership Education Team.

Dillon, Patricia, K. (1999, July). *Technology in Leadership Education.* Paper presented at the meeting of the Association of Leadership Educators, San Diego, CA.

Dwyer, D. (1994). Apple Classrooms of Tomorrow: What We've Learned**.** *Educational Leadership, 51* (7), 4-10.

Educational Testing Service. (2002). *GRE Information and Registration Bulletin* [Brochure]. Princeton, NJ: Educational Testing Service.

Fain, Gerald S. (1992). Ethics in Health, Physical Education, Recreation, and Dance. East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. 342775)

Hall, Eldon C. (1996). *Journey to the Moon: The History of the Apollo Guidance Computer*. Reston, VA: American Institute of Aeronautics and Astronautics.

Jonassen, D., Hannum, W., and Tessmer, M. (1989). Bloom's Taxonomy of Educational Objectives. *Handbook of Task Analysis Procedures.* New York: Praeger.

Lacy, Linda F. (1999). *Texas A&M University Undergraduate Catalog.* College Station, TX: Texas A&M University Office of Admissions and Records Publishing.

Meieran, Eugene S. (1998, 4th quarter). 21st Century Semiconductor Manufacturing Capabilities. *Intel Technology Journal*, Manufacturing article. Retrieved March 1, 2003, from http://www.intel.com/technology/itj/q41998.htm

Peck, Kyle L. and Doricott, Denise (1994). Why Use Technology? *Educational Leadership, 51* (7), 11-14.

Riel, M. (1994). Educational Change in a Technology-Rich Environment. *Journal of Research on Computing in Education, 26* (4), 452-474.

Schank, Roger C. and Edelson, D.J. (1990). A Role for AI in Education: Using Technology to Reshape Education. *Journal of Artificial Intelligence in Education, 1*(2), 3-20.

Shinn, G. (2001). Doc at a Distance Overview. Retrieved March 1, 2003 from Texas A&M University, Department of Agricultural Education Web site: http://doc-at-a-distance.tamu.edu/overview.html

Stajano, Frank. (2002). *Security in Ubiquitous Computing* (1st ed.). New York: John Wiley & Sons.

Steinberg, Esther R. (1991). *Computer-Assisted Instruction: A Synthesis of Theory, Practice, and Technology.* Hillsdale, NJ: Lawrence Erlbaum.

Texas A&M University. (2003). Student Information Management System [Computer software]. Retrieved March 1, 2003, from tn3270://tammvs1.tamu.edu

Townsend, Christine. (2002). *Agricultural Leadership Education, Department of Agricultural Education, Texas A&M University.* College Station, TX: Townsend.

Wilkinson, Barry and Allen, Michael C. (1998) *Parallel Programming: Techniques and Applications Using Networked Workstations and Parallel Computers.* New York: Prentice Hall.

APPENDIX A

POST-ACTIVITY SURVEY

Post-Activity Survey Form- Section 501

1. I feel like the level of technology used in this activity helped me understand the activity better.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

2. I would perceive myself to be a strong leader.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

3. I wish there were more opportunities to use technology in AGED 340 to work at my own pace.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

4. Computers are helpful in learning AGED 340 concepts.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

5. The use of computer technology has enabled me to be more productive in this course.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

6. I would like to see more AGED 340 lab assignments on computer.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

7. I am comfortable using computers.

○ Strongly Agree ◉ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

8. In the future, computers will be used as a part of teaching techniques for all college classes.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

9. Computers are becoming necessary to perform work efficiently.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

10. In completing assignments, classes that use computers take less time than classes that do not use computers.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

11. Computers help reduce the workload encountered in the home, school, and workplace.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

12. Computers are important in my present major.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

13. Computers are important to my future.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

14. I feel like the discussion I gained from this activity was good.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

15. I feel like I would be able to be more open with my AGED 340 comments if all discussions were in an online format.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

16. I think AGED 340 could be taught successfully by distance-learning technologies such as the web.

○ Strongly Agree ○ Agree ○ Disagree ○ Strongly Disagree ○ No Opinion

I want to provide the following comments about this experience:

Please register completing this application:

Last 5 Digits of my Student ID

Submit Comments | Clear Form

Revised: October 17, 1999 .

APPENDIX B

STUDENT QUALITATIVE DATA

501/502- Wholly asynchronous treatment group

I think this computer experience was educational in learning more about Aged 340. But we can rely on computer classes to teach us(students)everything we should know. We still need classroom instruction."
how can it help with discussions if you're only typing on a computer. AGed 340 is learning to deal with people. On the web someone will say anything because they don't have to be in the same room with people so they are less likely to watch their tongues. Face to face contact allows one to have to deal with anothers facial and body expressions which are major parts of communication.
I really liked doing this over the internet because I could do it whenever it was convenient to me.
The computer thing is very cool, but the Maytown thing itself is kind of dumb in my opinion
I think that discussions are sometimes difficult over the computer. It is easier to get direct feedback while talking to a person. More people tend to get involved in that way as well because someone may say something that sparks a thought. Plus, through a computer people can just kinda write nothing comments while in a room you can ask them to explain themselves more to get a better feel for what they mean. I deal with computers all the time so it my opinion isn't based on the fact that I don't like computers.
This has been an enlightening experience. I think the neatest part of the assignment is reading classmate's replies to my original letters.
I feel that I was able to better formulate my responses by being able to sit and think about them, then type them. But, I don't feel that I recieved good feedback from other students because some of their answers seemed short and lazy. One drawback of this format is that there is no authority to 'make' you spend a little extra time and put forth a good effort.
I found it difficult to post the replies. I thought thought that we were suppose to click on the post link at the top instead of at the bottom. It should have been more clear.
I wish that the instructions were clearer and more to the point.
It was an interesting and different approach.
I think that this was a very interesting assignment. It was very interactive and I had a chance to express my views without being in a class setting.

This was an interesting activity because it allowed for interaction with other class mates over the internet.
I felt that this was a good activity in that it let the student work at their own pace and around their schedule and that I didn't have to spend time writing all the information and flipping between sheets of paper to respond
I feel that is a good exercise but I think there could have been a little more guidleline how the proper format to the letters. We need to know how the TA grades. Each person has their own style of grading, some stricter than others. The TA's needs to give further instructions, then just say go to the web page.
I liked it
I found the project very confusing. The purpose of the assignment is still unclear. "
I think that having this assignment over the web was a very cool experience. I think it adds to our learning experience and also helps students become more familiar with learning over the web. I think that in the future, some courses will be held over the web, and I think this exercise helps a lot, and is something fun and different.
This experience was good. This was the first time that I have done anything like this and I did enjoy it. I had preconcieved ideas but the overall experience was good and I would not mind doing it again.
I believe computers need to be incorporated to all classes, but I do not feel that they should take away the value received from interacting with other people

503- Traditional classroom instruction control group

We did not use the computer, but I feel comfortable using them.
Envision the future and other on-line reading assighments hindered by learning because I was reluctant to print out 26 almost empty pages. What I would have gained (learned) was severely outweighed by the amount of paper that would be wasted.
computers/distance learning is the future. I need to get better with PC.

504/505- Hybrid half-asynchronous, half traditional treatment group

I thought this assignment was related to this class.
Computers are the future and need to be implemented more in every college class.
I thought this assignment was pretty basic and good. It was a lot less time consuming than the other assignments.
Need word check. Need a link to Maytown. When you hit the tab button the cursor disappears.
The discussion was helpful. It allowed me to get the insight of others and expand my point of view.
it was easy to follow; good. Rather cool assignment. (happy face)
great exercise, easy access was very convenient.
needs better instructions about posting.
Anytime computers can be used is a good learning experience b/c computers are going to be w/us.
I think the world is moving towards being all computer based but I am against it- I think it is only causing more problems in our society.
I'm not really sure how this assignment pertained to leadership. I guess it was just a way to get more experience on the computers.
It was a good assignment
It is all about interaction w/people and if it was only on the web. It would be yuck!
I liked it
Need a little clearer instructions.

APPENDIX C

STUDENT QUANTITATIVE RESPONSES

Student quantitative responses, coded as follows:

4- Strongly Agree
3- Agree
2- Disagree
1- Strongly Disagree
NO- No opinion

Section 501- Completely asynchronous
Section 502- Completely asynchronous
Section 503- Traditional instruction
Section 504- Hybrid instruction
Section 505- Hybrid instruction

Section	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
501	NO	3	3	4	4	4	4	4	4	4	3	4	4	4	2	NO
501	NO	4	3	2	3	4	3	4	4	3	4	4	4	2	2	4
501	2	3	2	1	1	1	4	4	3	2	2	3	4	1	2	3
501	3	4	4	3	3	4	4	4	4	4	4	4	4	3	3	2
501	4	4	4	3	3	3	3	3	3	3	3	3	3	3	2	3
501	3	3	3	3	NO	3	3	3	3	3	4	3	4	2	1	3
501	NO	3	4	NO	3	4	3	3	3	3	3	3	3	NO	3	4
501	2	4	3	3	3	3	3	4	4	3	2	4	4	2	2	2
501	1	3	2	2	2	2	4	3	2	2	2	4	3	2	3	2
501	3	3	NO	1	1	NO	4	4	4	NO	NO	4	4	1	2	3
501	3	3	3	3	NO	3	3	4	4	3	4	4	4	3	3	3
501	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3
501	3	3	2	3	2	2	4	4	4	2	3	4	4	3	2	3
501	2	4	4	3	3	4	4	4	4	2	2	4	4	2	4	3
501	3	3	4	4	3	3	4	3	4	3	3	3	3	NO	NO	3
501	3	NO	3	3	3	3	3	3	3	3	3	3	3	NO	3	3
502	3	4	4	3	3	3	4	4	4	4	4	3	4	NO	3	3
502	3	NO	3	4	3	NO	4	4	4	NO	3	NO	4	3	4	2
502	NO	3	2	NO	2	2	4	3	2	2	2	3	3	3	1	2
502	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
502	3	3	3	3	3	3	3	3	3	3	1	3		3	3	3
502	3	2	4	NO	3	3	4	3	3	3	3	2	3	NO	3	2
502	3	NO	3	3	3	2	3	3	4	2	3	3	4	3	2	3
502	3	3	4	3	3	3	3	4	4	4	3	3	4	3	4	4
502	3	3	3	3	3	3	4	4	4	4	4	4	4	3	3	3
502	NO	3	3	3	2	3	3	4	4	3	3	3	4	2	2	3
502	2	3	3	2	2	2	4	4	3	3	3	2	3	1	3	3
502	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3
502	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3
502	3	3	4	3	3	3	3	3	NO	4	4	3	4	3	3	3
502	3	NO	3	3	3	3	3	4	4	NO	3	3	4	3	3	3
502	2	2	3	2	2	2	3	3	2	2	3	2	3	2	2	4
502	2	3	3	3	3	2	4	4	4	NO	NO	4	4	2	1	NO
502	3	3	4	3	4	4	4	4	4	3	3	3	4	3	4	3
502	3	3	3	3	3	3	3	2	2	2	3	2	3	3	3	3
502	2	3	4	3	3	3	4	3	3	2	2	4	4	2	2	2
502	3	4	3	3	3	4	3	4	4	3	3	3	3	3	3	
502	1	4	3	4	4	4	4	4	4	4	4	4	4	1	2	2
503	NO	3	NO	3	NO	1	3	4	3	3	3	4	4	NO	NO	4
503	1	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
503	1	3	1	1	1	1	7	3	3	1	1	4	4	1	1	1
503	2	3	3	2	2	NO	4	3	3	3	2	3	4	2	1	NO
503	3	3	NO	2	2	2	3	2	3	2	3	3	3	3	2	1
503	2	3	3	2	2	3	3	4	4	2	3	3	4	3	3	3
503	3	3	3	3	3	3	3	3	4	4	4	3	4	3	3	3
503	NO	3	2	NO	NO	2	4	2	3	2	2	4	4	3	2	2
503	3	3	3	NO	NO	NO	4	3	3	3	3	4	3	2	NO	3
503	NO	4	NO	NO	3	2	3	3	3	2	2	NO	3	2	2	3
503	NO	3	NO	NO	NO	NO	3	3	3	2	3	3	3	NO	NO	NO
503	3	3	2	3	2	2	4	2	2	3	3	3	3	3	2	3
503		3	3	3	2	2	3	3	4	2	3	3	3	3	1	2
503	3	2	2	2	NO	NO	3	3	3	2	3	3	4	2	2	2
503	3	4	3	NO	NO	2	2	3	NO	NO	NO	3	3	3	NO	NO
503	NO	3	NO	NO	NO	3	3	3	4	3	NO	3	3	NO	NO	3
503		3	3	3	NO	3	3	3	3	3	3	3	3	2	NO	3
503	NO	3	NO	2	2	NO	4	4	4	3	2	4	4	NO	2	3
503	NO	3	3	NO	NO	3	4	4	4	4	4	3	4	NO	NO	NO
503	NO	3	1	1	1	1	4	3	1	2	2	3	3	3	1	1

Section	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
503	NO	3	2	NO	NO	1	3	4	3	1	3	3	1	2	3	3
503	NO	3	3	NO	NO	NO	4	4	4	NO	3	3	4	3	NO	1
503	NO	3	NO	NO	3	3	3	3	3	3	3	3	3	3	2	2
503	NO	3	NO	NO	NO	NO	3	3	3	NO	NO	3	4	NO	2	2
503	NO	3	NO	NO	NO	2	2	3	3	1	3	2	3	NO	3	3
504	2	3	2	2	2	3	3	3	3	3	2	3	3	1	2	2
504	3	3	4	4	3	3	4	4	4	3	4	3	4	3	3	3
504	3	3	4	4	4	4	4	4	4	4	4	3	4	3	3	4
504	3	3	NO	3	3	3	NO	4	3	3	3	3	3	3	NO	3
504	1	3	NO	2	2	2	3	3	3	2	2	3	3	NO	2	NO
504	NO	3	3	NO	NO	3	3	3	2	2	2	3	3	NO	NO	3
504	3	3	3	2	2	2	4	4	3	3	2	4	4	3	2	2
504	3	4	3	NO	NO	2	4	3	3	3	NO	4	4	3	2	2
504	NO	3	3	NO	NO	3	3	4	4	3	2	4	4	4	2	2
504	3	3	3	3	3	2	3	3	2	3	3	3	3	4	2	2
504	3	3	NO	NO	NO	NO	3	3	2	2	2.5	3	3	3	2	3
504	3	3	NO	NO	NO	3	4	4	4	2	3	4	4	3	NO	NO
504	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
504	3	3	4	4	3	3	4	4	4	4	4	4	4	4	4	3
504	3	3	2	2	2	2	3	3	4	2	4	3	4	3	NO	3
504	3	4	3	3	3	3	4	4	3	NO	3	4	4	NO	NO	3
504	4	3	4	4	4	4	4	4	4	4	4	4	4	4	1	2
504	3	3	3	3	3	3	3	3	4	3	3	4	4	3	NO	3
504	3	3	4	3	3	4	4	4	3	4	4	3	4	4	4	2
504	3	3	4	3	3	4	4	4	3	3	4	3	4	2	3	4
504	4	4	3	3	3	NO	4	4	3	NO	3	NO	3	3	3	3
505	3	3	4	3	3	3	4	4	3	3	3	NO	3	4	3	4
505	NO	3	3	NO	NO	3	3	3	4	3	3	3	4	3	NO	3
505	4	3	4	3	3	3	3	3	4	4	4	3	4	4	3	3
505	3	3	3	3	3	NO	3	3	3	3	3	NO	3	3	3	4
505	3	3	4	4	3	3	3	4	3	2	3	3	4	3	4	4
505	2	2	2	NO	3	2	3	3	3	2	3	NO	3	2	2	2
505	2	3	3	NO	2	3	2	3	2	NO	3	3	3	3	2	1
505	3	3	1	2	1	1	3	4	1	1	1	2	2	1	1	1
505	3	3	NO	NO	2	NO	3	3	4	NO	NO	NO	3	NO	NO	NO
505	3	3	4	4	3	4	4	4	4	3	4	4	4	3	3	2
505	3	NO	NO	NO	3	3	3	3	3	3	3	NO	3	3	3	3
505	3	3	3	3	NO	3	4	4	4	3	NO	4	4	3	3	2
505	3	4	3	4	3	4	4	4	4	3	3	4	4	3	3	NO
505	4	NO	4	3	NO	3	3	4	3	NO	3	3	4	3	NO	4
505	3	3	3	3	3	2	3	3	3	3	3	4	4	2	3	3
505	3	4	4	3	3	4	4	4	4	3	2	4	4	3	3	3

APPENDIX D

MAYTOWN ACTIVITY

Maytown In-Basket

An Agricultural Leadership Activity
Originally Developed by Oklahoma State University.

INSTRUCTIONS

You will be responsible for:

1) reading through the following letters
2) posting 5 of your own unique initial responses by Tuesday, October 12 **(75 points)** using the Index page
3) replying to 3 of your classmates' observations on the Index page by Tuesday, October 19, class time **(10 points)**
4) completing the post-activity survey by start of class on Tuesday, October 19.

Place yourself in the position of Michael Marzella, Executive Director of the Maytown Rural Rehabilitation District (RRD). **Respond to five of the ten items (at left) in your in-basket accordingly by posting to the web page.**

It's Saturday you've been gone all week to a conference in Washington. You stop in the office to check your mail and clean up your "in-basket" before you start the next week.

Your in-basket contains ten items--ten phone calls, letters, etc. that you missed while in Washington. **1st prioritize the items from most important to least important.**

Read each in-basket item and respond to your top 5 accordingly.

When you've finished with your response, post it to the Index Page

INFORMATION

- Michael Marzella
- Maytown
- Staff

HELP on Posting

Return to Index

The Maytown Rural Rehabilitation District (RRD)

Maytown, a community of 5,000, is located somewhere in Oklahoma. Although Maytown's agricultural base is greatly diversified, it is best known for its vegetable farms and orchards. German, Polish, and Irish farmers settled the area and their ancestors have been community leaders (town council, county commissioners, school board, etc.) Ethnic influences are still felt in the local churches, communities, and schools. Once drawn by seasonal work at the Del Monte canning factory, many Hispanics have made Maytown their home over the years and make up about 20% of the local population. Maytown suffered greatly in the 1980s as the farm economy deteriorated and many agricultural businesses and farmers went bankrupt. Del Monte has since closed its doors. In 1972 Maytown was the first resettlement location for refugees of the Vietnam and Cambodian Wars. Although unwelcome at first, the Asian immigrants are now tolerated by most of the community.

Maytown's population had declined over the last 20 years, but has increased slightly the last few years as some retirement communities have sprung up along the lake. Several bed and breakfast establishments as well as antique shops have recently opened, furthering Maytown's tourist economy.

You are Hispanic. You were raised in Brownsville, Texas and come from a large family that could be best described as lower-middle class. Your parents have a strong work ethic and are firm believers in education. You have a BS degree in Agricultural Education and Environmental Science from Texas A & I University and worked for the Minority Recruitment Office at Texas A&M University for a semester following graduation. You planned to go on for a master's degree, but your wife became pregnant. You spent four years with the Cooperative Extension Service following your BS and are now 26 years old. You now plan to stay a third year before returning to school. Your wife has accepted a teaching position, and most of her salary will be saved to enable you to return to graduate school full-time

Your undergraduate advisor heard about this opening in Maytown and suggested that you go for an interview. Although you were better qualified than other applicants, you were also the only Hispanic interviewed and you are well aware that your ethnicity was a deciding factor in your being offered the position. You accepted the position with some reluctance, but you decided that the practical experience in your field would be valuable.

Today is Saturday. You have just returned from an RRD Director's Conference in Washington and, while stopping by the office for your mail, you decided to clean up your "in basket" in preparation for what you know will be an exhausting week.

Your secretary, Donna, is in the outer office, but no other staff member is present. Your finance director and your recreation director are not in the office. The RRD's main focus is on rural development, and recreation but you have also become involved in pre-school education and environmental education. You employ two recreational specialists, two nursery school supervisors, a horticulture specialist, a naturalist, and the usual recreational youth center staff.

Secretary to the Director: Donna Sampo

Employed by the former Executive Director, Mrs. Sampo is extremely valuable to you because of her Maytown background and her knowledge of the RRD history. She is a forty-seven year-old widow with a wit as sharp as her secretarial skills. You have always felt very comfortable in dealing with her.

Finance Director: Stan Kennedy

He is forty-two, married, and has two children in high school. His wife's maiden name was May, but all that remains of her formerly wealthy background is expensive tastes. The May families were prominent horse breeders at one time but have lost all but half-dozen nags and the homestead. Stan came to Maytown to join his uncle's farm management business but neglected his farms to keep up with the social whirl of a promising young bachelor. Two disastrous campaigns for state representative and the death of his uncle finally brought him to a job as a tax accountant until he was hired by the RRD. Stan is reasonably effective in his job but has a great need for ego satisfaction. He was sure he would be appointed Executive Director and had in fact, taken over on his own volition for the three-month period between executive directors.

Recreation Director: John "Johnny" Walker

Johnny is thirty-four, and unmarried. He has a BA in recreation from Central State University in Edmond, Oklahoma. He also has sixteen hours of graduate credit in social work, completed during summers and evenings. Before his present position, he was assistant manager of a grocery store, where he worked during the summers of his undergraduate days. His real interest, however, was working for his church, the Church of the Tabernacle, and the area Boy Scout troops, as a volunteer youth group organizer. He has designed and coordinated the construction of a "ropes" course to teach team-building skills and has initiated summer trips to Outward Bound for troubled teenagers. His satisfaction comes from this volunteer work and his self-appointed work with rural youth. He is well known in Maytown for his success in molding

"red-neck" boys into productive adolescents. He feels some frustration because his position does not allow him to work closely with the people most affected by the RRD programs.

Help on Posting and Replying on the Index Page

1. To Post-

From the Index Page, click on the Post Button.
Type in your subject, your name, and then your comments.
Hit the Post Article button.

2. To Reply-

Click on a message that you are interested in from the Index Page.
Click on the reply link.
Type in your comments, then hit the Post Article button.

Maytown- Section 501

Proceed to Instructions.
Take the Post-Activity Survey.

[Home | Contents | Search | Post]

CONTENTS

Note: you may need to reload this page to see the most recent additions.

Proceed to Instructions.
Take the Post-Activity Survey.

Last changed: April 16, 2003
Visitor: Hit Counter

IN-BASKET ITEM NO. #1

Leising Correctional Center
P.O. Box 358
Statesville, Oklahoma 70001

July 18, 1998

Dear Mr. Marzella,

You'll probably think its funny getting a letter from a guy in prison, but Rev. Kagen our chaplain said it was worth a try.

I have served four years on a ten-year sentence for an arson conviction. I was only nineteen and I think I got in with a bad crowd. We was out drinking one night and thought we'd try to scare old man Hamilton by burning down one of his hog sheds. We didn't count on that gas line exploding and burning down his barn, house, and pickup though. We sure didn't think about anyone being in the house. I feel real bad for what happened to Mr. Hamilton. Rev. Kagen got hold of me after I got here and really showed me how to put my life back together. I'll graduate this summer with an associates degree in leisure studies--I guess these four years haven't been a waste after all.

I wish now that I had listened to Johnny Walker when he was telling us young guys that we needed an education. He really knows his stuff, even the religion stuff, but I was too interested in my Trans Am and my girlfriend Amy. Anyway

I've matured a lot in the last six years. I think I would like to help young people the way Johnny does and maybe show them how to do more than play pool and drink beer.

I am asking you to consider me for a job with the RRD when I get out if you need any help. I guess there is nothing I'd rather do and could do a better job at.

Yours Truly,

Matt James

IN BASKET ITEM NO. #2

Maytown Super Foods

1200 East Central, Maytown, Calvin
Mr. David Fisher - Owner and Manager

July 20, 1998

Michael G. Marzella
Executive Director
Rural Rehabilitation District
120 E. State Street
Maytown, Oklahoma 71010

Dear Mr. Marzella:

As a man who has a vital interest in the progress of the Maytown area, I wish to express my admiration for the fine work you and your staff are doing for that unfortunate segment of our population. Believe me, as a man who ate lard sandwiches for my school lunch and only finished the third grade, I can appreciate how much a full stomach can mean towards helping children learn.

I have been proud to be a part of your Pre-School Program by supplying you with the most nutritious hot lunch and breakfast foods at a reasonable price as you would find anywhere in this country. I get the pleasure of contributing something worthwhile, while the same time increasing my volume of sales.

I would like the opportunity to express my thanks to you in the best way I know how. Please drop by my store and pick up an assortment of cured meats for you and your wife. It is men such as you who make Maytown a great place to live!

Sincerely Yours,

IN-BASKET ITEM NO. #3

Irick Feed and Grain
Est. 1861 "Your Local Feed Dealer"
Family Owned - Joseph R. Irick, President

IAMS Good For Life.
Eukanuba The best you can do

July 21, 1998

Michael Marzella
Executive Director
Rural Development District
120 E. State Street
Maytown, Oklahoma 71010

Dear Sir:

We understand you employ Mr. Stanley Kennedy as your Finance Director. We feel you should call Mr. Kennedy's attention to the fact that his account with Irick's is seriously in errors. There have been no payments of any amount paid to us since April 4, 1997. At that time we informed Mr. Kennedy that any further charges to his account would be unauthorized. In the past two months Mrs. Kennedy has made three unauthorized charge purchases totaling $645.89. This brings their account balance to $4,213.45 or $3,213.00 over their maximum authorization.

As Mrs. Kennedy's family have been steady customers since this store was established, we have hesitated to embarrass them by taking the obvious steps; however, we now feel that we have gone beyond our capacity to accept further neglect of this financial responsibility. If substantial payment is not made by August 1, 1998, we will be forced to turn the account over to a collection agency. Thank you for your cooperation.

Yours Truly,

IN-BASKET ITEM NO. #4

St. Catherine's Catholic Church
233 W. Bratwurst Place Daily Mass - 5:30 a.m.
Maytown, Oklahoma 71010 Sunday Mass - 7:00 & 9:30 a.m.

July 20, 1998
Michael Marzella
Supervisor RRD

Dear Sir:

I am writing as a concerned Catholic mother and as secretary of the St. Catherine's Alter and Rosary Society. My son Anthony and my daughter Anna attend your outdoor education programs at the Wilderness Center after school and have participated in the summer camping trips you have sponsored. Many of my friends' children from St Catherine's Parish also attend and they are behind me writing this letter. We feel that the Wilderness Center idea is a fine idea because it gives our children something productive and educational to do and keeps them out of trouble, which is important to parents of teenagers. But what we want to know is why your recreation director, Mr. Walker and your assistant director, Miss Beam as well as two maintenance workers and the girl who is the snack bar waitress all come from the Church of the Tabernacle. We know for a fact that these people invite our children to their church groups and even Sunday school. Miss Beam asked my daughter if she was "saved"! The parents of St Catherine's Parish call that religious bias and even though there aren't as many Catholics who go to the Wilderness Center as Protestants, we understood that the RRD was trying to help people, not to force them under influence of holy rollers!

The Catholic parents of St Catherine's Parish are asking that our civil rights of religious freedom be given to our children. Leave religion out of your outdoor education program and also whom you hire to work there. Can't a Catholic girl serve hot dogs and cokes as well as a Church of the Tabernacle girl?

In-Basket Item No. #5

@ *Message from Donna* @

DATE: July 14th **TIME**: 1:00 p.m.

TO: Michael

FROM: Deputy Verne Adams

Derkins County Sheriff's Office

PHONE: (638-2202)

X **Telephoned __Please Phone**

__Please Call __Will Call Again

__Came by to See You __Returned Your Call

MESSAGE: Chief believes some teenagers are having beer parties in a secluded location near the nature center. He wants to plant some young "detectives" among the kids, thought we could use the 4-H members who are building that nature trail. Let him know what you think.

IN-BASKET ITEM NO. #6

Vietnamese-American Alliance
2131 9th Street - Apt. 4F
Maytown, Oklahoma 71010

Michael G. Marzella, Executive Director
Rural Development District
120 E. State Street
Maytown, Calvin

Dear Sir:

As a member of a minority group with the same struggles, hopes, and frustrations as any other minority group, I find it difficult not to resent the fact that Vietnamese have been ignored by such organizations as yours. True, we are much fewer in number than the Black minority or the Hispanic minority, but nevertheless, we daily suffer indignities which the Rural Rehabilitation District is, in theory, attempting to eradicate. Our neglect goes even deeper. Not one man or woman of Vietnamese background has ever been employed by RRD even though many Asian families are below the income level set by your organization as criteria for hiring. Not a single Vietnamese pre-schooler has been admitted to your Headstart Program,

nor has any real attempt been made to make our children feel welcome at your recreation centers.

To favor any one minority group over another is to fail in your purpose, as I see it. Your occupation would be greatly appreciated in the next month when children are preparing to return to school. Vietnamese children have often been the target of ethnic slurs and vicious ethnic "jokes." We all know how cruel children can be. Perhaps RRD could influence the educators of Maytown to shoulder their duty and see that this kind of discrimination be put to a stop. Vietnamese are going to be a part of this community for a long time, and we want some change now!

Sincerely yours,

Cho-Chun "Chuckie" Lui

IN-BASKET ITEM NO. #7

Author: Stan Kennedy
Date: 7/12/98 9:35 AM
Priority: Highest
To: Michael Marzella
Subject: Free Stuff (sort of)

Michael,

Joe Bickett came in to see me today and offered us some of the equipment from his organic herb farm that folded last fall. Said he needed an answer by Monday. Naturally he wants to use it as a tax write-off. We could use the equipment to groom the baseball fields, and build trails around the lake. Margie Leffleman would like the small greenhouse for her Head Start class. I don't know if you want to deal with Bickett, of course. Whatever you decide, I told him it would come officially from you.

IN-BASKET ITEM NO. #8

Maytown Daily Dog

Maytown, Oklahoma - **Sunday July 15, 1998** - Daily $.50, Sunday $1.00

LETTERS TO THE EDITOR

Editor, Maytown Daily Dog:

It is my unfortunate duty as a citizen of Maytown, a city of unusual integrity, to alert the good people who make this their home that once again, we have been plundered by one of the devious, greedy organizations who ask our money in the name of Christian charity and then line their own pockets, neglecting those they are alleged to be helping. Such an organization is the RRD, yet another attempt by the government to pacify the underprivileged and allow our consciences to rest while the true plight of the poverty stricken and alienated minority is muffled by the backslapping of self-satisfied administrators of so-called "programs." True, it is a government-supported organization and therefore gleans our money through taxes; however we are still in the end, being fleeced of our charitable contributions.

We are not so naive as to miss the fact that the federal government spends wastefully, particularly on such "worthwhile" schemes as RRD. What has RRD done with this bountiful gift of Maytown taxpayers' hard-earned money? Has it built teenage centers that would be the pride of this community with every possible piece of equipment and physical facility? Has it provided new classrooms for environmental education and hired the finest, best-qualified teachers? Has it even drawn from our local supply of qualified men to make its administrators; men who know and understand the problems to be faced in Maytown? The answer is no, to all points. A brief visit to the Nature Center will reveal that they have been converted from older buildings, probably long since condemned, such as the old Derkins grade school, and are supplied with makeshift equipment and questionable people as staff.

Certainly the children should get a better place of learning than a remodeled barn or the unused corners of Jefferson Junior High. And who are they hiring to assist these children in learning? Not my wife, for example, a college graduate with two years of elementary school experience. No, citizens, the assistant at the Hayloft Nature Center is a woman who has a high school education and had been on welfare before she was hired. Her lack of qualifications is certainly no fault of hers, but they do give RRD an opportunity to pay a much smaller salary to her than they would to my wife. All this is run, not by a local man, but an import from Davidson, Oklahoma with a fancy education, which they thought, would look good in the job because of his ethnicity.

Surely he has no personal interest in Maytown. True, the assistant directors are local men, or at least they've lived here for a few years. Of course one is too busy at cocktail parties to take time to understand those not in his social set. His wife, by the way, never dressed better.

The usual method of milking our tax dollars is through kickbacks from local contractors and wholesale suppliers. I do not have the information at this time to indicate exactly how it is being done, but what we must conclude is that large amounts of Government money are not finding their way to the rural groups RRD is supposed to serve, but to the pockets of RRD administrators. Neighbors of Maytown, are we again too

apathetic to root out these spoilers of tax money? Wake up and write your Congressman!

Abe Stein, CPA, MS, Ph.D.

IN-BASKET ITEM NO. #9

State Farm Insurance

Watson Insurance, Co.

Maytown, Oklahoma
Don Watson, Agent-Owner

July 19, 1998

Michael Marzella,
Executive Director
Rural Development District
120 E. State Street
Maytown, Calvin

Dear Michael:

JoAnn and I were so pleased that you and Juanita could make it to our Fourth of July Barn Dance this year. It has become a real tradition for us in the past seven years and we were so disappointed last summer when you had to be out of town. JoAnn was terribly impressed with all you said about the workings of the RRD. She is very big on "causes," you know, and has really taken RRD to heart since the Fourth. I might add that you and Stan Kennedy make quite a team!

Stan informs me that there is an opening on the Advisory Board of RRD beginning in September. I needn't tell you that JoAnn sees that as an ideal way for her to help share in the projects that RRD is accomplishing so well. Of course, her associations with other leading civic groups, etc., could provide a terrific liaison with other county residents who take their civic duties seriously and make RRD all the more effective.

Stan may have already discussed this with you. I'm sure Linda has put the bug in his ear since she and JoAnn are inseparable tennis partners. Let me know how you think that Advisory Board position is shaping up. You probably have a lot of well qualified people in mind, but it never hurts to put in a plug for the little woman. She has an awful lot of influence as I discovered during two successful County

Board campaigns.

Sincerely,

Don Watson

IN-BASKET ITEM NO. #10

Rural Route
1Razorback Road
Maytown, Calvin
July 18, 1998

Dear Mr. Marzella,

I feel obliged to write to you concerning my niece, Miss Season Dillion. One of your staff members at the Wilderness Center, Bob Besix, who is one of the big shots there, has taken liberties with Miss Dillion and now she finds she is going to have a baby. She has worked at the Wilderness Center for five months as a trail guide, and though she's in charge of a group she isn't much more than a teenager herself. Is this the kind of man you are trusting teenagers with who would take advantage of a young girl after the Center is closed? I realize that it takes two and Season is not all that innocent, but she said she loved him and now he says that it was probably one of the boys who went on one of those weekend trips. Season has turned nineteen and wouldn't be fooling around with those younger boys, even if some of them do look older.

Mr. Marzella, you know that things ain't always easy for us, even when you do get a job. Well Season's mother is sick and can't work and her husband is long gone. If Season can't work with a baby coming, I don't know what they'll do, as there are four other children younger in the family. Lord knows I can't take them all in with my husband only getting unemployment money. Her mother wouldn't write to you but I believe that something should be done, and right now about Bob Besix messing around with young girls. You make it clear to him that he has to support that baby.

Yours truly,

Wanda Schneider

VITA

Candidate: Robert T. Jones

Permanent Mailing Address:
P.O. Box 122
Wellborn, TX 77881-0122

Degree: Master of Science

Major Subject: Agricultural Education

Thesis Title: MEASURING THE IMPACT OF TECHNOLOGY ON LEADERSHIP EDUCATION

Biographical:

Personal Data: Born in Memphis, Tennessee October 4, 1974 to Robert and Sylvia Jones.

Education: Graduated Westfield High School, Houston, Texas, in 1993; received B.S. degree in Agricultural Development from Texas A&M University, College Station, Texas, in 1998; and received M.S. degree in Agricultural Education from Texas A&M University in May, 2003.

Professional Experience:

Senior Network Engineer
Computing and Information Services
Texas A&M University, 2002-

Chief Executive Officer
Cornerstone Consulting of B/CS LLC
College Station, Texas, 2001-

Manager, Data Network Engineering
Viatel, Inc.
Bryan, Texas, 2000-2002

Communications Engineer
Shell Oil Company
Houston, Texas, 1998-2000